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# **Who Owns Renewable Energy Certificates? An Exploration of Policy Options and Practice**

Edward A. Holt  
**Ed Holt & Associates, Inc.**

Ryan Wiser and Mark Bolinger  
**Environmental Energy  
Technologies Division**

**April 2006**

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Prepared for the

Electric Markets Technical Assistance Program  
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Principal Authors

Edward A. Holt, Ryan H. Wiser, and Mark Bolinger

Ernest Orlando Lawrence Berkeley National Laboratory  
1 Cyclotron Road, MS 90R4000  
Berkeley CA 94720-8136

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## **Executive Summary**

Renewable energy certificates (RECs) are increasingly important—not to mention of significant economic value—in states that accept or require them as evidence of compliance with renewables portfolio standards (RPS). The emergence of RECs as a tradable commodity has made utilities, generators, and regulators increasingly aware of the need to specify who owns the RECs in energy transactions.

In voluntary transactions, most agree that the question of REC ownership can and should be negotiated between the buyer and the seller privately, and should be clearly established by contract. Claims about purchasing renewable energy should only be made if REC ownership can be documented.

In many other cases, however, renewable energy transactions are either mandated or encouraged through state or federal policy. In these cases, the issue of REC ownership must often be answered by legislative or regulatory authorities. Some renewable energy contracts pre-date the existence of RECs, however, and in these cases the disposition of RECs is often unclear. Similarly, because of the recent appearance of RECs, legislation and regulation mandating the purchase of renewable energy has sometimes been silent on the disposition of the RECs associated with that generation. The resulting uncertainty in REC ownership has hindered the development of robust REC markets and has, in some cases, led to contention between buyers and sellers of renewable generation.

The purpose of this report is to provide information and insight to state policy-makers, utility regulators, and others about different approaches to clarifying the ownership of RECs. We focus exclusively on three distinct areas in which REC ownership issues have arisen:

- Qualifying Facilities (QFs) that sell their generation under the Public Utility Regulatory Policies Act (PURPA) of 1978;
- Customer-owned generation that benefits from state net metering rules; and
- Generation facilities that receive financial incentives from state or utility funds.

The issue of REC ownership most often arises in states that have adopted a renewables portfolio standard (RPS). Both parties to QF contracts have a lot at stake in RPS states, either additional cost, in the case of utilities, or additional value, in the case of QFs, depending on which party is awarded ownership of the RECs. Though typically of smaller volume, RECs from net-metered facilities and from facilities that have received state or utility incentives are also often eligible to satisfy state RPS policies, and RECs from these projects may be especially valuable where a separate solar or distributed generation set-aside exists.

### **RECs from Qualifying Facilities**

Uncertainty about who owns the RECs in mandated QF contracts with utilities led to a petition to FERC to issue a declaratory judgment on the question as it relates to Section 210 of PURPA.

FERC declared that avoided cost payments mandated by PURPA pay only for energy and capacity and do not convey the renewable attributes, absent explicit contractual language to the contrary. FERC also declared that states may decide the question, but that states must find the authority for their decisions in state law, not in PURPA.

The Qualifying Facilities were initially pleased with the FERC Order because they interpreted it to mean that utilities must pay separately, in addition to avoided costs, for the RECs. The FERC Order, however, left QF contracts in an unsettled state by simultaneously finding that RECs are a creation of the states and that states are the appropriate venue in which to determine REC ownership, as long as states do not base their decisions on PURPA avoided cost payments. As a result, the focus has shifted to the states, with the contenders on both sides of the issue often citing the FERC Order to bolster their cases.

We identified 16 states in which REC ownership in QF or other existing contracts had been addressed either explicitly or implicitly. In all but one case (New Mexico) the determination of QF REC ownership has been made by state regulation, as opposed to legislation, though in many instances these determinations have been informed by legislative guidance. We examined the record in seven states where the issue has been debated extensively among parties and where the record is readily available. Table ES-1 condenses the major arguments presented on both sides of the issue. This summary is selective, omitting some arguments that may be unique to the situation in one state, or others that seem less important, but including some of the arguments used in the FERC cases that were repeated in the state cases.

**Table ES-1. Summary of Arguments in QF REC Ownership Cases**

<b>Arguments for Utility Ownership</b>	<b>Arguments for QF Ownership</b>
<b>FERC Provides Comfort to Both Sides</b>	
The FERC Order affirms that REC ownership is a state issue, and therefore state commissions have jurisdiction.	The FERC Order affirms that, in the absence of specific language in the contract, PURPA does not require the QFs to transfer RECs to the purchasing utilities.
FERC declared that a state may decide that a QF sale of power to a utility transfers ownership of state-created RECs.	FERC declared that in awarding REC ownership to utilities, the state must find this requirement in state law, not in PURPA.
<b>Jurisdiction—Regulatory Commissions or Courts?</b>	
Regulators are merely being asked to <i>clarify</i> which entity is entitled to RECs as a matter of state law. The contracts will not change, and the utilities will continue to pay the same price that was originally approved.	Regulators may not modify or interpret contracts between utilities and QFs. Courts, or arbitration if specified in contracts, should resolve contract disputes.
<b>Do Contracts Convey RECs?</b>	
Payments are intended to compensate the QF for the entire output of the facility, including its non-power characteristics.	“Electricity,” “electric output,” and “contract power output” have never been defined to include the fuel used to generate the power.  FERC states that avoided costs are not intended to compensate the QF for more than energy and capacity.
In some states, QFs submit affidavits to the purchasing utilities attesting that the power sold is renewable	It is clear that avoided cost payments do not compensate for RECs because renewable QFs are paid the same

## Who Owns Renewable Energy Certificates?

Arguments for Utility Ownership	Arguments for QF Ownership
energy. This proves that the utilities are being sold the renewable attributes.	<p>avoided costs as fossil-fueled cogeneration QFs are paid. Therefore avoided cost payments by utilities compensate only for energy and capacity, and not for the environmental benefits.</p> <p>Some state calculations of avoided cost are currently based on costs associated with fossil fuel-fired plants that do not have associated RECs. Thus avoided cost compensation does not include any recognition of the economic value of the RECs.</p>
When an asset or commodity is not specifically reserved for the seller, the full asset or commodity is deemed to have been transferred to the buyer.	When a contract does not expressly convey mineral rights (or RECs) those severable property interests are reserved for the seller. A utility can only be entitled to those products specifically enumerated in a contract.
What Is the Basis of the Purchase Obligation?	
The renewable attributes are inextricably tied to QF sales of energy. The fact that a facility is renewable is what obligates a utility to purchase its power. A utility would not be obligated to enter into a contract absent the facility's status as a "small renewable power project." Therefore ownership of the RECs must remain with the utility if its customers are to receive full value for the cost of this resource.	The PURPA requirement to purchase electricity from renewable QFs does not mean that contracts must convey the RECs to the utilities. Being renewable is merely a qualifying characteristic that makes a generating facility eligible for a contract, and does not require transfer of the attributes. The FERC Order supports this distinction and affirms that RECs are not automatically transferred to the purchasing utility.
Is Compensation Fair?	
Renewable QFs are already fairly compensated based on a stream of guaranteed payments, which QF owners presumably judge to be sufficient to earn a return on their investment.	<p>Payments are not related to QF economic needs but on the utility's avoided cost.</p> <p>Even with avoided cost payments for energy and capacity, QFs still bear the risk for unanticipated facility operational expenses required due to changes in environmental laws, and the risk for any claims, liabilities or damages arising from the design, construction and operation of the QF. REC ownership rewards should follow facility ownership risks.</p>
Utilities and their ratepayers are already paying above market prices for QF contracts and therefore customers should receive all the benefits of this energy.	Although most QF contracts have turned out to be expensive relative to market prices, the absolute price payable under a QF agreement is not relevant to determining the parties' intent with regard to REC transfer. The contract cannot be interpreted in light of subsequent changes in market prices. QFs must be paid the avoided cost in effect when the agreement was made.
Requiring utilities to pay extra for RECs is a windfall to QFs that were satisfied with contract terms entered into long ago without the promise of supplementary remuneration in the future.	Requiring QFs to transfer RECs with energy without additional compensation is a windfall to utilities that were satisfied with contract terms entered into long ago without the promise of supplementary values in the future.
Allocating the RECs to the QF would unfairly enrich the QFs at the expense of ratepayers. If the utility is	Payment for RECs may be critical to a project's economic feasibility. The sale of RECs separate from

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Arguments for Utility Ownership	Arguments for QF Ownership
required to purchase the RECs separately to satisfy a state RPS, ratepayers might have to pay substantially higher costs.	power is intended to compensate the owner of the renewable facility and promote further investment in renewable resources. Because the risks of development and operation of a renewable facility are borne by the QF owner, the rewards associated with RECs should also accrue to the QF.
There is no change in price because nothing different is being conveyed than before RECs were invented.	Awarding RECs to utilities in exchange for their originally contracted purchase price is tantamount to a reduction in price after the agreements were made. Purchase prices agreed to at the time of the PURPA contract cannot be revisited by state commissions.
Is Awarding RECs to Utilities an Uncompensated “Taking” of Private Property?	
There is no entitlement to compensation for RECs because (1) there is no reasonable expectation of protection, for example a statute conferring property rights in RECs; (2) there is no permanent occupation of private property; (3) the restriction on RECs does not deprive the QF of all economic value attached to its property; and (4) restrictions on property may be allowed as long as they promote the general welfare. The fact that a property interest cannot be fully exploited is not sufficient to turn government restrictions into a compensable taking.	Regulatory assignment of RECs to the utilities without just compensation would constitute an unconstitutional taking of private property in violation of the Fifth and Fourteenth Amendments to the US Constitution, and would obligate the state to compensate the QFs for the value of RECs.
What Is the Effect on Ownership of Unbundling RECs?	
Even though RECs were not contemplated at the time the QF contracts were signed, this does not change the fact that electricity attributes were a fundamental part of the QF transaction. The QF transactions were, in effect, a bundled sale of energy and attributes that at the time represented a single product.	RECs are not mentioned in the contracts as being transferred. Electric energy sales do not transfer products that are unbundled from the energy and capacity sold.
RECs were being conveyed with PURPA contracts even before they were recognized and valued. Just because an attribute subsequently acquires a separate market value does not mean that it now warrants separate compensation	RECs are a new product that must be contracted for and sold pursuant to its own terms separately from the energy and capacity.
The adoption of a system that allows for unbundling does not transform the essential nature of a QF contract as a bundled transaction into one that includes only the commodity.	State RPS programs and regional REC tracking systems provide for the creation of unbundled certificates. If RECs are unbundled commodities, it cannot be argued that they are automatically transferred with the sale of power as an inseparable part of the QF output.
Are the Parties Being Even-Handed in Their Interpretation?	
By accepting a QF contract, the generator avoids the risk of market forces and is entitled to a long-term, assured revenue stream. The utility is guaranteed cost-recovery by the regulatory commission. The energy market risk is shifted to the utility and its ratepayers. By now asserting ownership of the RECs, however, the QF seeks to retain the benefits of PURPA protection but	If a utility were to be granted ownership of all renewable attributes, it should also be responsible for the environmental attributes and liabilities of non-renewable power plants from which it purchases but does not own—contingencies that are not recognized on the utility’s books. Utilities should not be able to pick and choose which attributes it would like to own among

<b>Arguments for Utility Ownership</b>	<b>Arguments for QF Ownership</b>
gain the benefits of market participation through the separate sale of RECs.	all the purchased energy for which it contracts.
<b>Does the Presence of an RPS Affect the Arguments?</b>	
<p>In RPS states, utilities purchasing QF output should be deemed to have purchased the attributes of the power and should be able to count the RECs towards meeting the RPS. Granting the RECs to the utility would reduce RPS compliance costs borne by ratepayers.</p> <p>In restructured states where utilities are no longer obligated to serve load, utilities may be required to commit their QF power supply to competitive suppliers. In this case, it is appropriate to allocate the renewable attributes of this power to the suppliers.</p> <p>Because the proceeds from entitlement sales are used to offset stranded costs, a lower value for the entitlements translates into higher stranded costs for ratepayers.</p>	<p>Payment for RECs may be critical to a project's economic feasibility. The sale of RECs separate from power is intended to compensate the owner of the renewable facility and promote further investment in renewable resources. Because the risks of development and operation of a renewable facility are borne by the QF owner, the rewards associated with RECs should also accrue to the QF.</p>
In states with an RPS, awarding the RECs to the QFs would result in the utilities having to pay the QFs twice, once for energy and capacity based on avoided cost, and a second time for RECs, for no additional benefit to ratepayers.	Utilities and ratepayers receive the benefits of renewable energy even without the RECs: increased fuel diversity, a local and secure fuel supply, increased efficiency of energy production, and a fixed price not subject to the vagaries of world commodity markets. RECs will not provide these benefits to utilities and their customers.
For purposes of determining REC ownership, it is permissible to distinguish between existing facilities or contracts, and new ones (an analog is that some states only allow new renewable generation to qualify under their RPS).	Permitting more recent renewable facilities to realize additional revenue from the sale of RECs, while prohibiting those with pre-existing contracts from doing the same, would unlawfully discriminate against existing QFs.
The law intends the RPS to encourage the construction of new renewable resources, and not to pay more for RECs from existing renewable resources that already sell their output to the utility.	The law intends the RPS to be met in the most cost-effective manner, which includes purchasing RECs associated with any given contract, whether from a new generator or an existing QF.

Table ES-2 summarizes state determinations so far on the ownership of RECs within the context of QF generation and PURPA. Treatment of REC ownership varies significantly based on whether the QF contract pre-dates a specific regulatory determination or whether the regulation applies to new QF contracts (or at least post-dates a regulatory determination). The older pre-existing contracts are generally silent on the issue of ownership and therefore present a greater challenge, but without guidance, buyers and sellers may be stalemated in negotiation of new contracts as well.

Based on a combination of the arguments noted in the previous table, states have opted in most cases to establish that the utility purchaser will have title to the underlying RECs for existing QF contracts, while several states award RECs resulting from new contracts to the QF. Such determinations are especially common in states with RPS mandates where existing renewable generation is eligible. In these instances, state policymakers are apparently concerned that conveyance of RECs to existing QF generators would unnecessarily raise the cost of the RPS

policy. Though a large number of states have ruled on the issues QF REC ownership, some of these rulings have been appealed in state and federal courts, and some uncertainty therefore remains.

**Table ES-2. State Positions on REC Ownership under PURPA QF Contracts**

<b>RECs Conveyed to Power Purchaser</b>	<b>Proceeding in Process (←leaning→)</b>	<b>RECs Retained by QF Unless Otherwise Stated in Contract</b>
CT (existing)	AZ→	CO (new)
CO (existing)	←CA (existing)*	NV (new)
ME (existing)*	PA	OR (new)
MN (existing)**		RI (new)
ND (existing and new, with compensation)		TX (new)
NJ (existing)		UT (new)
NM (existing and new)		
NV (existing)		
TX (existing)		
WI (existing)**		

\* Maine and California currently count PURPA QF contracts towards RPS, without specifically requiring RECs to be transferred to the buyer.

\*\* Renewable attributes appear to be conveyed with underlying energy deliveries, by default, for purpose of compliance with state RPS requirements, but treatment of RECs is not stated clearly.

## RECs from Net Metered Facilities

Most of the net metering laws or rules now in place in roughly 40 states were developed and adopted without consideration of RECs and therefore do not address REC ownership. Where this topic has been debated, it has generally not created the level of discussion seen regarding ownership of QF RECs, in part because the economic scale of the issue is of lesser importance than for QFs (except, arguably, where solar or distributed generation set-asides are included in RPS policies). As a result, our findings provide significantly less insight into the arguments and rationale leading to the outcomes described.

Of those states that have addressed ownership of net-metered RECs, most have done so in the context of state renewable energy standards where small behind-the-meter generation is eligible to satisfy an RPS. Table ES-3 summarizes state determinations so far on ownership of RECs in net metering and distributed generation agreements. As shown, all states that have addressed this issue so far allow customers to retain ownership for all or a majority of the RECs for the generation used on site,<sup>1</sup> though two states require some sharing of these RECs and there are at least three cases where RECs from net excess generation are conveyed to the utility.

<sup>1</sup> Though not a state, NorthWestern Energy, a Montana utility, appears to be the only exception.

**Table ES-3. State Positions on REC Ownership under Net Metering and Distributed Generation**

<b>RECs Associated with Customer Load Conveyed to Utility</b>	<b>RECs Associated with Net Excess Generation Conveyed to Utility</b>	<b>Proceeding in Process (←leaning→)</b>	<b>RECs Retained by Customer-Generator</b>	<b>RECs Shared between Utility and Customer</b>
NorthWestern Energy	MN (with compensation) ND (with compensation) NV	AZ→ PA→	CA* CO MI** MN*** ND*** NJ NM NV*** OR	MD**** DC****

\* California may reconsider.

\*\* Although Michigan rejected a proposal for utility ownership, it did not affirmatively award RECs to the customer-generator. At least one utility disputes this interpretation that RECs are retained by the customer-generator, and may be claiming them for environmental disclosure purposes.

\*\*\* Customer retains only those RECs associated with customer load.

\*\*\*\* Implementation details not yet available.

In the many cases where states have remained silent on this issue, most stakeholders likely assume that RECs remain with the customer-owners of the projects, unless explicitly transferred. Where currently unstated, however, it would be helpful for states to clarify REC ownership under net metering, and states that have not already adopted net metering rules will have an opportunity to do so as a result of the Energy Policy Act of 2005—Section 1251 requires state commissions and non-regulated electric utilities that have not already adopted net metering to consider doing so. If such states and utilities decide to adopt net metering, it would be a good time to address and remove uncertainty about REC ownership.

### **RECs from Projects Receiving Financial Incentives**

A number of states and utilities provide financial incentives to renewable energy projects. A few states, such as Washington, are explicit that the RECs from projects receiving financial incentives belong to the project owner. By their silence on the issue, most other state renewable energy programs that offer financial incentives make no demands for the RECs from renewable energy projects that they support financially. Still other state and utility programs, however, do require that RECs be transferred from the owner of the facility to the entity offering funding. These include programs in Oregon and Nevada, as well as incentives offered by a few individual utilities.

In the vast majority of cases, states have not conditioned the receipt of state incentives on the transfer of RECs to the incentive program administrator. This is because most states are aiming to support renewable energy projects financially, but also want those subsidized generators to maximize other revenue sources so that state subsidies can be reduced over time.

Where REC transfer to the funding entity does occur, it is often based on the existence of an RPS (especially if it includes a solar set-aside like Arizona, Nevada, and Colorado). In these instances, requiring REC transfers in exchange for funding or some form of payment is viewed as a way of helping the state or utilities meet their RPS obligations.

Two of the states cited, Washington and Nevada, addressed the disposition of RECs in statute, although these two states came down on different sides of the issue, perhaps because of the presence of an RPS in one state (Nevada) but not the other (Washington). Two states, California and Colorado, have addressed the issue in regulatory proceedings. Each of these states has an RPS, which demands greater regulatory clarity. Two states (Connecticut and Oregon) have acted through programmatic decisions.

Table ES-4 summarizes state determinations on ownership of RECs where financial incentives have been received by the generator.

**Table ES-4. Positions on REC Ownership with Financial Incentives**

<b>RECs Conveyed to Funding Entity</b>	<b>Proceeding in Process (←leaning→)</b>	<b>RECs Shared between Funder and Generator</b>	<b>RECs Explicitly Retained by Generator</b>
CO* NV* Several individual utility programs	←AZ*	OR	CA* (may reconsider) CT* WA Most others

\* RPS present in state.

## Conclusions

Given FERC's judgment, and the fact that more and more states have adopted policies in which RECs are recognized, if not required, for RPS compliance, pressure has been mounting on the states to address the question of REC ownership. This is critical for QF contracts because the quantity of RECs from QFs, and potentially their value, is significant. It is also important for RECs from customer-sited, net-metered facilities, even though the quantity of RECs is much smaller. In both cases, states have acted because RECs from these facilities are material to compliance with state renewable portfolio standards, or may otherwise be sold in voluntary markets. A few states or utilities have also clarified ownership of RECs from generating facilities that receive financial incentives.

On a longer-term basis, issues of REC ownership may diminish. New agreements—whether QF contracts, net metering arrangements, or incentive agreements—are more likely than older contracts to clearly specify REC disposition. The number of QF contracts is also likely to diminish with the passage of the Energy Policy Act of 2005, resulting in less tension and conflict.

In the meantime, state policymakers will play a critical role in ownership determinations, and some degree of confusion and uncertainty will likely remain. Most of the determinations have thus far occurred through state regulatory action. Absent further clarification from FERC on the



issue of QF REC ownership, however, in the future states may wish to determine REC ownership through state legislation. Though regulatory action has been the more common approach to date, those decisions have sometimes been appealed to the courts. State legislative action may reduce such appeals.



## 1. Introduction

Renewable energy certificates (RECs) represent the bundle of information that describes the characteristics of renewable electricity generation,<sup>2</sup> and may be (and increasingly are) sold separately from the underlying electricity itself. RECs are a relatively new phenomenon, emerging as a tradable commodity in voluntary markets in the late 1990s, and gaining strength as a means of compliance with various state policy requirements affecting renewable generation in the early 2000s (Holt and Bird 2005).

Twenty states and Washington, D.C. now have mandatory renewables portfolio standard (RPS) obligations, and most of these may be satisfied by owning and retiring RECs. Many states also have fuel source and emissions disclosure requirements, for which RECs are useful. Even where state policy does not allow unbundled and fully tradable RECs to meet these requirements, RECs may still be used as an accounting and verification tool (REC tracking systems are in place or under development in many regions of the U.S.). These applications, plus REC trading activity in support of voluntary green claims, give rise to potential “double counting” to the extent that the purchaser of the RECs and the purchaser of the underlying electricity both make claims to the renewable energy attributes of the facility in question (Hamrin and Wingate 2003).

When renewable electricity is sold and purchased, an important question therefore arises: “Who owns the RECs created by the generation of renewable energy?”

In voluntary transactions, most agree that the question of REC ownership can and should be negotiated between the buyer and the seller privately, and should be clearly established by contract. Claims about purchasing renewable energy should only be made if REC ownership can be documented.

In many other cases, however, renewable energy transactions are either mandated or encouraged through state or federal policy. In these cases, the issue of REC ownership must often be answered by legislative or regulatory authorities. Some renewable energy contracts pre-date the existence of RECs, however, and in these cases the disposition of RECs is often unclear. Similarly, because of the recent appearance of RECs, legislation and regulation mandating the purchase of renewable energy has sometimes been silent on the disposition of the RECs associated with that generation. The resulting uncertainty in REC ownership has hindered the development of robust REC markets and has, in some cases, led to contention between buyers and sellers of renewable generation.

The purpose of this report is to provide information and insight to state policy-makers, utility regulators, and others about different approaches to clarifying the ownership of RECs. We focus exclusively on three distinct areas in which REC ownership issues have arisen:

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<sup>2</sup> There are differences of opinion and policy regarding the definition of a REC, and debates about what exactly is included in a REC. For example, some argue that a REC is merely proof of renewable generation and lacks environmental attributes, while others argue that RECs should include all of the associated environmental attributes of renewable power. This report does not address these definitional differences and related arguments.

- Qualifying Facilities (QFs) that sell their generation under the Public Utility Regulatory Policies Act (PURPA) of 1978;
- Customer-owned generation that benefits from state net metering rules; and
- Generation facilities that receive financial incentives from state or utility funds.

This is a survey report. It reviews how both the federal government and states have addressed these issues to date, and highlights the arguments that have been raised for different REC ownership dispositions. Our aim is to describe the arguments on each side, and the context for the debates that are occurring. We do not, in this report, provide a list of policy recommendations for how policymakers *should* be addressing these issues.

Since PURPA is a federal law, we first examine REC ownership issues from the federal perspective, discussing arguments made to the Federal Energy Regulatory Commission (FERC) and the FERC's rulings on REC disposition. We then discuss how REC ownership for PURPA QFs has been addressed at the state level by legislation or regulation, often (but not always) in the context of state RPS or fuel source disclosure requirements. We specifically describe the approaches taken and arguments used in 16 states. We then turn to the treatment of REC ownership within the state net metering rules of 12 states, where many arguments common to the PURPA discussion have reappeared. Finally, we briefly examine REC ownership within the more limited context of state or utility renewable energy funds that provide financial incentives to renewable generators.<sup>3</sup>

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<sup>3</sup> For QF contracts, we examine the debate in Arizona, California, Colorado, Connecticut, Maine, Minnesota, Nevada, New Jersey, New Mexico, North Dakota, Oregon, Pennsylvania, Rhode Island, Texas, Utah and Wisconsin. For net metering, we consider Arizona, California, Colorado, Maryland, Michigan, Minnesota, Nevada, New Jersey, New Mexico, North Dakota, Oregon, Pennsylvania, and the District of Columbia. For financial incentives, we review the situation in Arizona, California, Colorado, Connecticut, Oregon, Nevada, Washington and several individual utilities.

## 2. PURPA QF Contracts – Federal Perspective

The Public Utility Regulatory Policies Act (PURPA) of 1978 requires utilities to purchase energy and capacity from qualifying facilities (QFs) at the interconnecting utility's avoided cost. A QF is a cogeneration or small power production facility that meets certain criteria established by the Federal Energy Regulatory Commission (FERC). Small power producers are those that use renewable energy sources or waste fuels. PURPA specified a maximum size limit of 80 MW on small power production facilities, but this limit was waived by Congress in 1990 for all facilities, except hydropower plants, that requested QF status by December 31, 1994.<sup>4</sup>

Older QF contracts did not articulate ownership of the REC because RECs were not defined or traded until the late 1990s. Even parties to new QF contracts are not sure what to do, absent greater clarity provided by federal law or state regulation. As a result, the question has been debated, "Who owns the RECs, the QF generator or the utility?" (Belval and Rosetti 2002; Hamrin and Wingate 2003).

To clarify the situation, in 2003 several companies that own and operate QF facilities petitioned the Federal Energy Regulatory Commission (FERC) for a judgment that avoided cost contracts entered into pursuant to PURPA do not inherently convey RECs to the purchasing utility.<sup>5</sup> Below we summarize the arguments made in support of and in opposition to this petition, and then describe the FERC's ruling on this matter. To be clear, the arguments summarized below are not those of the authors, but rather represent the positions of multiple interested parties. Some arguments may seem contradictory or illogical; no attempt has been made to reconcile such inconsistencies.<sup>6</sup>

### 2.1 Arguments for QF Ownership of RECs

The petitioners sought to head off anticipated objections by first arguing that the decision they sought is within FERC's exclusive jurisdiction. FERC shares responsibility with the states for implementing PURPA, but FERC's role is to set the rules governing QF purchase rates, while the states' role is to establish utility avoided costs in accordance with FERC's rules. Petitioners argued that whether avoided cost is intended to compensate a QF for RECs is a question of interpretation that falls squarely within FERC's exclusive jurisdiction.

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<sup>4</sup> See 18 Code of Federal Regulations Section 292.201-211. It should be noted that the Energy Policy Act of 2005 (signed into law August 8, 2005) revised PURPA extensively, but existing QF contracts are not affected by the legislation. Prospectively, the law imposes more stringent requirements on cogeneration facilities, but no new regulations are required for small power production (renewable) facilities. However, FERC may end the utility purchase obligation on a regional basis if it finds that a particular electricity market is workably competitive (Shapiro et al. 2005).

<sup>5</sup> FERC Docket No. EL03-133-000, Petition for Declaratory Order and Request for Expedited Consideration, American Ref-Fuel Company, Covanta Energy Group, Montenay Power Corporation, and Wheelabrator Technologies, Inc. June 16, 2003.

<sup>6</sup> The petition, as well as related comments and FERC orders, may be found at <http://www.ferc.gov/docs-filing/elibrary.asp>, by clicking on Docket Search, and entering EL03-133.

The petitioners argued that absent express provisions to the contrary, PURPA contracts do not convey RECs to a utility that purchases QF power at avoided cost:

- The avoided cost paid by utilities to QFs is intended to compensate only for the energy and capacity generated by a QF, and not for the environmental benefits associated with QF generators. Under Section 210(b) of PURPA, such QF purchases must be at rates that are (among other things) not in excess of the incremental cost to the electric utility of alternative electric energy. Section 210(d) of PURPA, in turn, defines “incremental cost of alternative electric energy” as “the cost to the electric utility of the electric energy which, but for the purchase from [the QF], such utility would generate or purchase from another source.” The Petitioners pointed to FERC regulations that define avoided cost as the purchasing utility’s alternative cost of generating or purchasing an equivalent amount of energy and capacity. Because environmental attributes are not mentioned, PURPA contracts providing only for avoided cost payments do not convey any such attributes of the facility.
- PURPA section 210 states in part that rates for purchases of QF power “shall not discriminate against qualifying cogenerators or qualifying small power producers.” The same power purchase price applies to all QF generators, be they renewable small power production facilities or fossil-fuel-fired cogenerators. Because some QFs create attributes that have value, while others do not, paying the same avoided cost for both would be discriminatory against those with the valuable attributes, were those attributes conveyed to the utility. The petitioners therefore concluded that the avoided cost compensates a QF for generic energy and capacity unrelated to the environmental attributes of the selling facility.
- FERC previously ruled that the State of California may not give preference to renewable generation under QF avoided cost rules. As part of a state integrated resource planning process, the California Public Utilities Commission (CPUC) required that the utilities solicit supply that was restricted only to renewable QF bidders. In 1995, FERC ordered that the CPUC’s limitation of the sources of supply created an unfair premium for renewable energy in violation of PURPA’s avoided cost rules. FERC also wrote that the State “may not set avoided cost rates or otherwise adjust the bids of potential suppliers by imposing environmental adders or subtractors that are not based on real costs that would be incurred by utilities.”<sup>7</sup> The petitioners argued that awarding RECs to utilities is tantamount to adjusting the prices previously bargained for based on the RECs’ environmental value, and that RECs are not part of the real costs that would be incurred by utilities if they instead pursued their avoided resource options.

Petitioners further argued that under FERC precedent, the environmental attributes of generation are treated as unbundled from the sale of power.

- FERC previously found that the trading of emissions allowances established under the Clean Air Act Amendments (CAAA) does not constitute the sale of electric energy and can occur independently of the sale of power.<sup>8</sup> The cited case, brought by the Edison Electric Institute,

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<sup>7</sup> Southern California Edison Co., 70 FERC ¶ 61,125 (1995) and 71 FERC ¶ 61,269 (1995).

<sup>8</sup> FERC Docket No. PL95-01-000, Order Disclaiming Jurisdiction over the Sale or Transfer of Emissions Allowances under Sections 203 and 205 of the Federal Power Act, issued December 15, 1994.

is not specific to PURPA or QFs, but the petitioners argued that REC sales are similarly separate and distinct from power sales.

- In another case, FERC found that the sale of “green power certificates” associated with emission-free wind power to be “incidental” to the business of owning and operating a facility and selling electricity at wholesale.<sup>9</sup> Although once again this was not specific to PURPA QFs, petitioners argued that FERC precedent confirms that electric energy sales do not transfer products that are unbundled from the energy and capacity sold. There is therefore no reason to reach a different conclusion for RECs when QF power is sold under a PURPA contract. “Like emissions allowances and ‘green power certificates’ allocated to generators, RECs associated with QFs are generation-related attributes and are separate and distinct from the energy and capacity sold to the utility.”

Petitioners also stated that their position is consistent with the policies that rely on REC tracking and trading.

- State RPS programs and regional REC tracking systems provide for the creation of unbundled certificates. If RECs are unbundled commodities, it cannot be argued that they are automatically transferred with the sale of power as an inseparable part of the QF output.
- Moreover, the sale of RECs separate from power is intended to compensate the owner of the renewable facility and promote further investment in renewable resources. Because the risks of development and operation of a renewable facility are borne by the QF owner, the rewards associated with RECs should also accrue to the QF.

Finally, the petitioners argued that FERC should discourage attempts to revisit the avoided cost determinations made at the time of the purchase obligation. Allowing utilities to claim ownership of the RECs in exchange for their avoided cost purchase price would be tantamount to a reduction of avoided cost rates after the agreements were made.

A number of intervenors filed statements in support of the petition.<sup>10</sup> Most of these comments expressed general support or emphasized a limited number of the above arguments.

Several other parties intervened but filed no substantive comments on either side of the issue.<sup>11</sup>

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<sup>9</sup> FERC Docket No. EG01-11-000, Determination of Exempt Wholesale Generator Status and Interpretation of the Public Utility Holding Company Act of 1935, as Amended, issued December 14, 2000.

<sup>10</sup> The following parties supported the petition: Arlington County, Virginia, Department of Environmental Services; Azure Mountain Power Company, Tannery Island Power Company, Hydro Power, Inc., and Energy Enterprises, Inc.; California Biomass Energy Alliance; City of Alexandria, Virginia; Craven County Wood Energy; Decker Energy International; Electric Power Supply Association; Florida Partnership for Affordable Competitive Energy; Independent Energy Producers of New Jersey; Independent Power Producers of New York; Miami-Dade County Department of Solid Waste Management; Minnesota Methane LLC; Northeast Maryland Waste Disposal Authority; Olmsted County, Minnesota; Ridgewood Renewable Power, LLC; Sithe Energies, Inc.; Solid Waste Association of North America; USA Biomass Power Producers Alliance.

<sup>11</sup> These included the California Energy Commission; Constellation Power Services, Inc.; CHI Energy, Inc.; New England Power Pool Participants Committee; and the Pennsylvania Public Utility Commission.

## 2.2 Arguments for Utility Ownership of RECs

Generally, utilities and several state regulatory commissions opposed the Petition.<sup>12</sup> Their arguments fall into two major categories, though not all of them made the same arguments.

First, they argued that FERC should decline to grant a declaratory order on the subject:

- The issue of REC ownership is not a matter of interpretation of PURPA regulations, but rather a private contractual matter not suited to a generic decision by a regulatory agency. Disputes over ownership should be settled according to the applicable dispute resolution provisions of the contracts, by the state regulatory agency that implemented the QF purchase mandate, or by litigation in a court of competent jurisdiction.
- Most PURPA contracts were reviewed and approved by state regulatory commissions and are, by their terms, to be interpreted in accordance with state law. In addition, contract rates, terms and conditions differ dramatically from one contract to another. FERC should therefore decline to exercise jurisdiction in this matter.
- FERC has previously declared that the states have the responsibility for implementing PURPA and FERC's rules, and found that disputes over specific provisions of PURPA contracts are for states to decide.
- FERC does not need to issue a uniform interpretation to carry out its PURPA responsibilities. Further, it is inappropriate for FERC to make a preemptive declaration with regard to one issue that may arise in state RPS programs that would apply in all states regardless of the goals, requirements, and specific features of each state program.
- The declaratory order requested by the petitioners is not an interpretation of FERC's governing statutes, regulations, or policy. Instead it is an interpretation of PURPA contracts, which vary greatly in accordance with applicable state statutes, regulations, and administrative orders requiring the purchase of energy from QFs.
- Under PURPA's enforcement scheme, a declaratory order issued by FERC would be merely advisory. Even if FERC were to issue the petitioners' requested order, it would not resolve any actual dispute regarding the transfer of RECs under a PURPA contract.

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<sup>12</sup> Atlantic City Electric Company; Bangor Hydro-Electric Company; California Public Utilities Commission; Central Maine Power Company; Edison Electric Institute; FirstEnergy Companies (Jersey Central Power & Light Company, Metropolitan Edison Company and Pennsylvania Electric Company); Maine Public Utilities Commission; New Hampshire Public Utilities Commission; New York State Public Service Commission; New York State Electric & Gas Corporation; Northeast Utilities Service Company (Connecticut Light and Power Company, Western Massachusetts Electric Company, and Public Service Company of New Hampshire); Pacific Gas and Electric Company; PacifiCorp; PPL EnergyPlus, LLC and PPL Electric Utilities Corporation; Public Service Electric and Gas Company; Rochester Gas and Electric Corporation; Southern California Edison Company; United Illuminating Company; Xcel Energy Services, Inc.



Second, if FERC were to decide that it was appropriate to issue an order on the subject, it should declare that, absent express provisions to the contrary, the REC's should belong to the utility purchasing the QF power:

- The renewable or environmental aspects are an inseparable part of a power purchase from a QF because they are the reason why utilities are mandated to contract for the output (recall that the PURPA purchase requirement only applies to small power producers of certain types, and qualifying cogeneration facilities). If the attributes are not included, there would be no basis under PURPA to require the transaction. Allocating the REC's to the QF would allow the QF to sell the REC's separately from the energy, and effectively remove from the transaction the very renewable characteristics of the fuel source that triggered the PURPA mandatory purchase obligation in the first place. Petitioners "seek to have their cake (requiring utilities to purchase their QF power) and eat it too (retain the certificates signifying the nature of the power being sold)."
- Avoided cost payments are intended to compensate the QF for the entire output of the facility, regardless of its non-power characteristics, fuel costs, regulation ability, dispatchability, or its environmental attributes.
- Renewable QFs are already fairly compensated. QFs are constructed based on a stream of guaranteed payments, which QF owners presumably judge to be sufficient to earn a return on their investment. Since the purchasing utility is required to pay what is in theory sufficient to cover all the QF's costs, it is reasonable that the utility receive all of the economic value from the QF.
- Allocating the REC's to the QF would unduly benefit the QF and harm utility customers. If the utility is required to purchase the REC's separately to satisfy a state renewable energy program, ratepayers might have to pay substantially higher costs.
- Because the purchasing utility bears all of the market price risk, it is only reasonable that the utility receive not only the total output of the QF but also all of the economic value from these mandatory purchases.
- If utilities built and owned the renewable generating facility, they would get both the power output and the REC's. If utilities receive only the power output from a QF, utilities are placed in an inferior position, a distinct disincentive to purchase from the QF and in contradiction to the purpose of PURPA to promote the development of independent power production facilities.
- Attributes of some QFs, such as lack of dispatchability, impose additional costs on the purchasing utility that are not reflected in the avoided cost paid. In these instances the output of the QF is treated as a bundled product. It is not reasonable to allow QF owners to retain some attributes that have value, while passing on unwanted and costly attributes that impose a cost on the purchasing utilities.

- Because PURPA contracts were entered into before RECs were conceived, the fact that QF contracts were silent as to REC ownership should not be interpreted as REC-retention by the generators.
- Referring to the cases cited by the petitioners in support of attributes being sold separately from power (relating to emissions credit trading and the sale of green power certificates, both cited above), some intervenors argued that these cases are irrelevant to who is entitled to ownership. Rather, these cases merely allow attributes to be sold separately, without addressing who owns them in the first place.
- One intervenor argued that in the case of emission credit trading, there is in fact programmatic precedent for environmental attributes being conveyed along with generation sold to utilities. Sulfur dioxide allowances based on energy generated by renewable generators may be allocated to the utility purchasing the power under the Conservation and Renewable Energy Reserve established by the Clean Air Act Amendments of 1990.

State regulatory commissions that commented also argued that the question of REC ownership should be left to the states to decide:

- The New Hampshire Public Utilities Commission, for example, maintained that “only each State’s regulatory agency knows what assumptions were used concerning future environmental controls of the utilities’ generation in the setting of long-term QF rates.”
- The New York Public Service Commission added that granting the RECs to the generator would interfere with state programs such as New York’s Environmental Disclosure Program and Renewable Portfolio Standard.
- The Maine Public Utilities Commission asked specifically that FERC, if it were to rule at all on the merits of the petition, determine that Maine utilities own the renewable attributes from QF contracts entered into prior to the date of electric restructuring in Maine. Contracts entered into post restructuring were of little interest because Maine utilities were divested of generation in the state’s restructuring law.

### **2.3 The FERC Decision**

In its order, FERC avoided making a sweeping decision. It stated that its avoided cost rules under PURPA cannot be the basis for transferring ownership of RECs to the utility purchasing the power. Beyond that, FERC left it to the states to decide the REC ownership question.

Specifically, FERC stated that “the Commission’s avoided cost regulations did not contemplate the existence of RECs and that the avoided cost rates for capacity and energy sold under contracts entered into pursuant to PURPA do not convey the RECs, in the absence of an express contractual provision.” FERC noted further, however, that RECs are the creation of states, and that PURPA does not address the ownership of RECs. Therefore, “while a state may decide that

a sale of power at wholesale automatically transfers ownership of the state-created RECs, that requirement must find its authority in state law, not PURPA.”<sup>13</sup>

Within a month of the FERC order, several parties requested a rehearing.<sup>14</sup> They argued that FERC’s October 1, 2003 order was internally contradictory because it was based on inconsistent conclusions. One inconsistency, it was argued, is between the finding that (1) REC ownership is a matter of state law, on the one hand, and that (2) PURPA contracts do not convey renewable attributes, on the other.<sup>15</sup> Another inconsistency pointed out is between the conclusion that (1) PURPA does not address the ownership of RECs, and (2) that contracts entered into under PURPA do not convey RECs to the purchasing utility. In both cases, it was argued, if the first conclusion is correct, then the Commission has no basis or authority for reaching the second conclusion.<sup>16</sup>

Some parties also protested that FERC had given inadequate consideration to their arguments. One, for example, felt that FERC had ignored the argument that a QF can compel a utility to purchase its output at avoided cost rates only because of the renewable attributes of its facility, and re-stated its argument that it is illogical to conclude that a purchasing utility is not paying for a QF’s environmental attributes when the mandatory purchase obligation arises because of those attributes.<sup>17</sup>

On April 15, 2004, FERC denied the requests for rehearing, emphasizing that its initial order was based on its interpretation of the avoided cost rules:

“Under PURPA and our implementing regulations, avoided costs were intended to put the utility in the same position when purchasing QF capacity and energy as if the utility either had generated the energy itself or purchased the energy from another source. In this regard, the avoided cost that a utility pays a QF does not depend on the type of QF, *i.e.*, whether it is a fossil-fuel-fired cogeneration facility or a renewable-energy-fired small power production facility. As those seeking rehearing recognize, only renewable energy small power production facilities have renewable attributes, yet the energy from a cogeneration facility is priced the same as the energy from a small power production facility. Both are priced based on a purchasing utility’s avoided costs. The Commission thus reasonably concluded that avoided cost rates are not intended to compensate the QF for more than capacity and energy.”<sup>18</sup>

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<sup>13</sup> FERC Docket No. EL03-133-000, *Order Granting Petition for Declaratory Ruling*, October 1, 2003. *American Ref-Fuel Co. et al.*, 105 FERC ¶ 61,004 (2003).

<sup>14</sup> A rehearing or clarification was requested by Edison Electric Institute, Jersey Central Power & Light, Maine Public Utilities Commission, Northeast Utilities Service Company, Pacific Gas and Electric, Public Service Electric and Gas, and Xcel Energy Services. All arguments for rehearing may be found in the same manner as described in footnote 5.

<sup>15</sup> FERC Docket No. EL03-133, Request of the Maine Public Utilities Commission for Rehearing, or, in the Alternative, Clarification of Order Granting Petition for Declaratory Order, October 31, 2003.

<sup>16</sup> FERC Docket No. EL03-133, Request of the Edison Electric Institute for Rehearing or Clarification, October 31, 2003.

<sup>17</sup> FERC Docket No. EL03-133, Request for Rehearing of Xcel Energy Services Inc., October 31, 2003.

<sup>18</sup> FERC Docket No. EL03-133-000, *Order Denying Rehearing*. April 15, 2004. 107 FERC ¶ 61,016 (2004).

FERC went on to say:

“If avoided cost rates are not intended to compensate a QF for more than capacity and energy, it follows that other attributes associated with the facilities are separate from, and may be sold separately from, the capacity and energy.”

In a footnote to this statement, FERC noted that:

“...cogeneration facilities, to receive QF status, are required to produce both electricity and useful thermal output... The thermal output that is a pre-requisite to a cogeneration facility’s achieving QF status is saleable separately from the capacity and energy of the cogeneration facility... If the thermal output of a cogeneration QF is separately saleable, the renewable attributes of a small power production QF are similarly separate.”

In other words, in response to the argument that attributes must be conveyed to the utility because the mandatory purchase arises because of those attributes, FERC noted that a QF’s renewable attributes are relevant merely as a threshold criterion or condition of eligibility, and are not inextricably linked to energy and capacity.

## **2.4 The Ongoing Federal Debate**

The end of this debate has not yet been reached, as the issue is the subject of several cases currently in the courts (Olson 2005). In one specific case, Xcel Energy Services appealed FERC’s ruling to the US Court of Appeals. Xcel argued that FERC was wrong to determine that RECs and electricity are separate products, because a utility’s obligation to purchase QF power arises from the renewable and environmental attributes of QF generation. Avoided cost rates, therefore, must compensate QFs for a QF’s renewable attributes. By arguing that PURPA requires the purchase of renewable energy, by which Xcel means energy and its renewable attributes, Xcel sees FERC’s refusal to convey RECs to the utility on the basis of avoided costs as an indirect requirement that the utility fulfill the PURPA obligation by two separate purchases, one of energy, the other of RECs, and in so doing increasing the utility’s cost of compliance.

FERC argued that the appeals court has no jurisdiction to review its order, and that even if the court has jurisdiction, its order was reasonable because PURPA only requires a utility to purchase a QF’s energy and capacity at the utility’s avoided cost. Neither PURPA nor FERC require a utility to purchase RECs. The environmental attributes of a QF are relevant only to a QF’s initial qualification as a QF, and have nothing to do with a utility’s avoided costs.

FERC went on to emphasize that state law controls the creation and transference of RECs. Consequently, state law, not PURPA, determines whether RECs and electricity are separate commodities and whether the purchase of both would result in an aggregate payment that exceeds a utility’s avoided costs. American Ref-Fuel, one of the original petitioners, countered that FERC went too far in that argument. Specifically, American Ref-Fuel argued that FERC explicitly decided that PURPA contracts do not convey RECs to purchasing utilities, and FERC’s order did not leave that issue open for further determination under state law (Olson 2005).

On May 17, 2005, the U.S. Court of Appeals for the District of Columbia Circuit concluded that it lacked jurisdiction to consider Xcel's petition for review, and therefore did not rule on the merits of the case.<sup>19</sup> But other suits may still be pursued.

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<sup>19</sup> U.S. Court of Appeals for the District of Columbia Circuit, *Xcel Energy Services, Inc. v. Federal Energy Regulatory Commission*, Decided May 17, 2005, No. 04-1182.  
<http://pacer.cadc.uscourts.gov/docs/common/opinions/200505/04-1182a.pdf> (July 5, 2005).

### 3. State Action on PURPA QF Contracts

Though some continue to argue that FERC's decision is wrong, even accepting the order at face value still leaves room for differing interpretations. For example, some apparently believe that the FERC order *precludes* states from requiring that REC be conveyed along with contracted QF power (see the American Ref-Fuel argument above). Others see the order as placing this decision *firmly* in the state domain. The different interpretations suggest that the FERC order is unclear, and states are now stepping in to clarify the situation at least for their own programs.

Some state PUCs addressed or began addressing REC ownership under PURPA contracts even before the FERC order. Since the order, emboldened by FERC's apparent finding that states have some authority in this realm, more states have taken up the issue. The impetus for these discussions has typically come from state RPS obligations in which RECs have tangible market value. This is especially the case under RPS requirements that allow existing renewable generation to qualify as eligible. Realizing the value of the RECs from PURPA contracts, parties have called for clarification of REC ownership.

So far, most states that have explicitly addressed this issue have awarded QF RECs to the purchasing utility, although there are exceptions. The rationale for the decision in each case has differed, although some of the same themes may be heard in each state. The first states to address the question in rulemaking proceedings were Maine and Connecticut, and we start there. Other states are summarized roughly in the chronological order in which they addressed the issue.

#### 3.1 Maine

In Maine the issue of REC ownership arose in the context of the state's Resource Portfolio Requirement and the adoption of the NEPOOL Generation Information System (GIS) to track generation attributes. Maine's restructuring law (1997) forced its electric utilities to divest themselves of generation. Because the utilities were no longer in the generation supply business yet they continue to hold QF contracts, they were required to sell their entitlements to QF output to competitive providers that periodically bid for the right to provide standard offer service. The proceeds from this sale of QF entitlements are intended to offset stranded costs for the benefit of Maine's ratepayers. The Legislature made QF power eligible for Maine's portfolio requirement, enhancing the value of QF entitlements for the purpose of RPS compliance.

In 2002, the Maine Public Utilities Commission (MPUC) initiated a rulemaking to consider incorporating the newly developed NEPOOL GIS (a certificate tracking system) as a means for complying with Maine's portfolio and disclosure requirements. During this process, which predated the FERC order discussed earlier, the ownership of QF-associated GIS certificates was identified as an issue.

To consider this matter in more detail, the MPUC initiated a proceeding. In its Notice of Investigation, the MPUC stated its tentative conclusion that the GIS certificates should be

conveyed to the purchasing utility, and hence to the competitive providers purchasing the entitlements to the QF contracts. The MPUC offered the following arguments:<sup>20</sup>

- It is only by virtue of the existence of the renewable attributes that facilities are deemed QFs and utilities become obligated to purchase their power. The attributes are thus integral to QF contracts.
- Even though certificates were not contemplated at the time the QF contracts were signed, this does not change the fact that electricity attributes were a fundamental part of the QF transaction. The QF transactions were, in effect, a bundled sale of energy and attributes that at the time represented a single product. The adoption of a system that allows for unbundling does not transform the essential nature of a QF contract as a bundled transaction into one that includes only the commodity.
- During the sale of entitlements, utilities informed potential purchasers of the QF output that the offered power would satisfy Maine's portfolio requirement. At the time of the auctions, no QF disputed representations to this effect, which supports the common understanding that when an entity buys QF power it is buying renewable energy.
- If the entitlement purchasers do not obtain the certificates associated with the QF power, the MPUC would be forced to consider recognizing the entitlements (without the use of certificates) in satisfying the portfolio requirement so as to avoid the inequitable frustration of legitimate expectations. To avoid prevent double counting of the entitlements and the RECs, the MPUC may not allow QF RECs to be used for any purpose in Maine.
- Failure to transfer the certificates to the utilities could also unfairly enrich the QFs at the expense of ratepayers. Because the proceeds from entitlement sales are used to offset stranded costs, a lower value for the entitlements translates into higher stranded costs for ratepayers.

The MPUC invited comments on their reasoning. The two utilities, the standard offer provider that purchased the QF entitlements, and the public advocate supported the MPUC's arguments and agreed with its tentative conclusion that QF contracts convey the attributes to the purchaser along with the energy.

Several parties representing qualifying facilities and other small power producers, plus an organization representing the state's large industrial consumers, filed comments in opposition to the MPUC's tentative conclusion. They provided the following arguments:

- It is incorrect to claim that RECs are included in QF transactions. A utility can only be entitled to those products specifically enumerated in a contract.

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<sup>20</sup> MPUC Docket No. 2002-506, *Investigation of GIS Certificates Associated with Qualifying Facility Agreements*, Sept. 6, 2002.

## Who Owns Renewable Energy Certificates?

- The notion that QFs have already been paid for the RECs is refuted by the fact that efficient cogenerators, and even, one party claimed, inefficient cogenerators (those with a total thermal and electric efficiency of less than 60%), were paid the same price as renewable small power producers.
- Contract terms vary from one power purchase agreement to another as to what rights were conveyed to purchasers, and a generic interpretation of contracts is inappropriate.
- Courts, not an administrative agency, should resolve contract disputes that cannot otherwise be settled by the parties.
- The MPUC has previously refused to involve itself in contract disputes relating to QF power purchase agreements (PPAs). One party stated that the MPUC has exercised its jurisdiction only as to the creation of QF contracts, but has never asserted jurisdiction over the interpretation or implementation of such contracts, and should decline to do so in this case.
- Any attempt by the MPUC to modify, change or otherwise interpret the terms and conditions of contracts entered into pursuant to PURPA is pre-empted by federal law.
- The State's jurisdiction over QF contracts is limited to what has been delegated to it by FERC, which otherwise has exclusive jurisdiction over wholesale power contracts. (This argument was made over a year before the FERC order discussed earlier.)
- Assignment of GIS certificates to utility buyers would constitute an uncompensated taking of private property in violation of the Fifth and Fourteenth Amendments to the US constitution, and would obligate the state to compensate the QFs for the value of GIS certificates assigned to utility buyers.

Some of the QFs argued for even-handed treatment of risks and rewards:

- Utilities have historically borne no risk for unanticipated facility operational expenses required due to changes in environmental laws. They (or their assignees) should not, then, obtain the benefits of unanticipated operational revenues from changes in environmental laws, such as an RPS.
- Tradable emission allowances are similar to tradable renewable certificates and may be obtained by independent non-renewable generating facilities, but they are not required to be transferred to utilities that buy the power.
- Utilities purchasing from QFs are typically shielded from any risk for any claims, liabilities or damages arising from the design, construction and operation of the QF—risks that are borne by the facility owner. Facility ownership rewards should follow facility ownership risks.

As part of the GIS rulemaking, the MPUC provisionally adopted the use of GIS certificates for the state RPS but granted an exception for entities purchasing entitlements to QF power from



utilities. This exception allows such entities to demonstrate compliance with the portfolio requirement even if the entity has not been provided with the GIS certificates. Because this could lead to double counting, the MPUC may reject GIS certificates for compliance if it finds double-counting would result.<sup>21</sup> The provisional rule changes were submitted to the Maine Legislature for review, and were later adopted in final form.<sup>22</sup>

Although the FERC order was issued subsequent to the MPUC's ruling, there has been no further discussion about certificate ownership. The MPUC is awaiting the outcome of various lawsuits (not in Maine) before deciding whether to take any further action.

### 3.2 Connecticut

Minnesota Methane owns a landfill gas facility located in Hartford, Connecticut which delivers energy and capacity to Connecticut Light and Power Company (CL&P) under a 20-year contract that was originally approved by the Connecticut Department of Public Utility Control (DPUC) in 1996.

The two parties to the contract were unable to agree about the ownership of the RECs created for the Hartford facility by the NEPOOL GIS. As a result, CL&P filed a petition in March 2003 with the DPUC requesting that the DPUC reopen the original contract approval and issue a declaratory ruling that CL&P is entitled to (1) all existing and future RECs issued for the Hartford facility, and (2) the proceeds from any prior sales of such RECs.

In response, Minnesota Methane requested that the DPUC dismiss the CL&P petition on the grounds that:<sup>23</sup>

- PURPA precludes the DPUC from modifying or interpreting the terms of the contract.
- The relief sought by CL&P would constitute a "taking" of private property without just compensation.
- The terms of the contract itself require arbitration of the dispute.
- The CL&P petition did not meet the legal requirements for declaratory relief.

The DPUC denied Minnesota Methane's motion to dismiss, and granted CL&P's petition for a declaratory ruling. The parties and intervenors then filed their briefs in February 2004. CL&P's initial brief offered the following arguments:<sup>24</sup>

- The contract was based on the premise that Minnesota Methane would be selling renewable energy to CL&P. CL&P would not have been obligated to enter into the contract absent the facility's status as a "small renewable power project."

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<sup>21</sup> Maine PUC, Docket No. 2002-494, Order Provisionally Adopting Rule and Statement of Factual and Policy Basis, February 13, 2003. MPUC Chapter 311, Section 5(B)(1).

<sup>22</sup> Maine PUC, Docket No. 2002-494, Amendments to Eligible Resource Portfolio Requirement Rule (Chapter 311), Order Adopting Final Rule, June 18, 2003.

<sup>23</sup> CT DPUC Docket No. 96-07-21RE01, Initial Brief of Minnesota Methane LLC in Opposition to Petition of the Connecticut Light and Power Company, February 13, 2004.

<sup>24</sup> CT DPUC Docket No. 96-07-21RE01, Brief of the Connecticut Light and Power Company, February 13, 2004.

- CL&P was required to purchase renewable energy at a premium price because the generating facility was a small renewable power project. This premium price was intended to pay for the RECs. CL&P has therefore paid for the RECs, and the contract requires Minnesota Methane to sell and deliver the RECs to CL&P.
- Although the contract does not contain an express provision requiring the transfer of RECs, the contract does require that Minnesota Methane sell and deliver the “entire electrical output of the facility,” and this includes the renewable attributes of the energy.
- GIS certificates were created by unbundling of renewable energy into generic energy and RECs. NEPOOL’s creation of GIS certificates does not change the contractual relationship between Minnesota Methane and CL&P.

In response, Minnesota Methane offered the following arguments:<sup>25</sup>

- The DPUC does not have jurisdiction to interpret the contract between Minnesota Methane and CL&P because PURPA precludes the DPUC from modifying or interpreting contract terms, and in addition, the contract requires arbitration of any disputes.
- Awarding the RECs to CL&P would adjust the price paid under the contract because it would transfer additional value to the utility without compensation.
- The contract phrase “entire electric output” is limited to the purchase and sale of energy and capacity only and does not include RECs. Therefore, the contract cannot be interpreted to require the transfer of RECs to CL&P.
- CL&P has already received, without the transfer of RECs, the benefits that justified the requirement to purchase renewable generation: “an increase in fuel diversity; a local and secure fuel supply; an increase in the efficiency of energy production; and a fixed price, not subject to the vagaries of world commodity markets.”<sup>26</sup>
- Minnesota Methane did not sell and CL&P did not pay for the RECs. Requiring that Minnesota Methane transfer the RECs to CL&P would create an unfair windfall to CL&P and its customers. This would have a chilling effect on the renewables community and its investors.

Additional arguments were entered by intervenors.<sup>27</sup>

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<sup>25</sup> CT DPUC Docket No. 96-07-21RE01, Initial Brief of Minnesota Methane LLC in Opposition to Petition of the Connecticut Light and Power Company, February 13, 2004.

<sup>26</sup> *Ibid.*

<sup>27</sup> CT DPUC Docket No. 96-07-21RE01, Brief of Bristol Resource Recovery Facility Operating Committee, February 13, 2004; Brief of Wheelabrator Lisbon Inc., February 13, 2004.

- Although most PURPA contracts have turned out to be expensive in comparison to market prices, the absolute price payable under a QF power purchase agreement is not relevant to determining the parties' intent with regards to the transfer of renewable attributes. The contract cannot be interpreted in light of subsequent changes in market prices. QFs must be paid the avoided cost in effect when the agreement is made.
- The theory underlying the pricing formula is relevant, however. There is no difference between PURPA pricing for renewable resources and gas- or coal-fired cogeneration facilities. All PURPA contracts (renewable and cogeneration) have been priced at the utility's long run avoided costs, so no premium of any kind was designed into the pricing formula to pay for renewable attributes.
- Just as the DPUC cannot lower the price paid for a product in a contract already approved, it cannot add to the list of products (i.e., RECs) to be delivered for the same purchase price.

The DPUC, in its decision issued March 19, 2004, decided that it did indeed have jurisdiction. In reaching this conclusion, the DPUC took note of the FERC Order, which was issued in the course of the DPUC proceeding. The DPUC noted specifically FERC's finding that PURPA does not preempt a state commission's jurisdiction. The DPUC further found that:

- The GIS Certificates merely quantify the renewable attributes of the electricity, and are and were intended by the DPUC to be sold by Minnesota Methane and purchased by CL&P.
- The electricity sold to CL&P included the renewable attributes of the Minnesota Methane facility because they were the necessary condition for the DPUC to approve the original contract between the parties (i.e., the facility was eligible for avoided cost payments only because it used a renewable resource).

In conclusion, the DPUC ordered Minnesota Methane to transfer to CL&P (1) all existing and future GIS Certificates issued for the facility; and (2) the proceeds from any prior sale of the Certificates by Minnesota Methane.<sup>28</sup>

This decision is on appeal in both state and federal courts (Dean 2005).

### **3.3 New Mexico**

New Mexico has addressed the ownership of RECs through its adoption of an RPS. As discussed below, the New Mexico Public Regulation Commission (PRC) initially seemed to award RECs to the generator, but a later legislative revision made clear that in the case of QF contracts the RECs are owned by the purchaser of the power.

In December 2002, the PRC approved an RPS of 10% renewable energy by 2011. In its regulations, effective July 1, 2003, the PRC described RECs in part as follows: "Renewable energy certificates are owned by producers of renewable energy in amounts corresponding to the

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<sup>28</sup> CT DPUC, Docket No. 96-07-21RE01, Application of Minnesota Methane, LLC Regarding the Sale of Electricity Generated at the Hartford Landfill to the Connecticut Light and Power Company. Decision, March 19, 2004.

total output available for actual delivery to customers in New Mexico...until transferred by sale to a public utility.”<sup>29</sup>

In part because the PRC’s authority to adopt this mandatory RPS was challenged, in 2004 the legislature adopted Senate Bill 43, the Renewable Energy Act. Although it kept much of the 2002 PRC rule intact, it made a significant modification on the question of REC ownership.

The Renewable Energy Act states that:

“Renewable energy certificates are owned by the generator of the renewable energy unless (1) the renewable energy certificates are transferred to the purchaser of the energy through specific agreement with the generator; (2) the generator is a qualifying facility, as defined by the federal Public Utility Regulatory Policies Act of 1978, in which case the renewable energy certificates are owned by the public utility purchaser of the renewable energy unless retained by the generator through specific agreement with the public utility purchaser of the energy; or (3) a contract for the purchase of renewable energy is in effect prior to January 1, 2004, in which case the purchaser of the energy owns the renewable energy certificates for the term of such contract.”<sup>30</sup>

The PRC then revised its rules to conform to the new law, and incorporated this language verbatim.<sup>31</sup>

### 3.4 Nevada

As part of the Nevada RPS, the Public Utilities Commission of Nevada (PUCN) has established a program to allow energy providers to trade RECs to meet the renewable energy requirements. The energy providers obligated under the RPS are the state’s two investor-owned utilities. Pursuant to a rulemaking, the PUCN requires that “If a renewable energy system has entered into a contract with a provider of electric service before December 8, 2003, the renewable energy credits generated by the renewable energy system pursuant to the contract must be awarded to the provider, or as otherwise determined in a proceeding...”<sup>32</sup> The rule does not mention QF contracts specifically, but applies to QF and other older renewable energy contracts. By implication, RECs from contracts entered into on or after December 8, 2003 would be retained by the generator, unless specifically transferred by contract. The state’s utilities are counting the power purchased from QFs for their RPS obligations.

### 3.5 New Jersey

New Jersey’s consideration of REC ownership also arose from the state’s restructuring act and the state’s RPS. Under the restructuring act, Basic Generation Service (BGS) is to be provided to customers who do not actively choose a competitive electricity supplier. The right to provide

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<sup>29</sup> New Mexico PRC Case 3619, Final Order Adopting 17.9.573 NMAC.

<sup>30</sup> New Mexico Laws of 2004, ch. 65 § 1, NMSA 1978 §§ 62-16-1 to 62-16-10 (Senate Floor Substitute for Senate Bill 43, 46<sup>th</sup> Legislature, Second Session, 2004).

<sup>31</sup> NMPRC Case No. 04-00211-UT, Final Order 21 December 2004; 17.9.572.13 NMAC.

<sup>32</sup> Nevada Public Utilities Commission, Docket No. R115-03, effective February 18, 2004; entered as Nevada Administrative Code 704.8925.

BGS is determined by a bidding process conducted periodically by each of the state's regulated utilities, and bids are reviewed and approved by the Board of Public Utilities (BPU). The winners of these auctions are entitled to a *pro rata* share of the energy that is committed to the utilities by QF contracts signed prior to restructuring.

The winners of the BGS auctions are required to comply with the New Jersey RPS. In "interim guidance" issued in 2004, the BPU announced that it would credit BGS suppliers with the RECs associated with the utility QF contracts.<sup>33</sup> One of the QFs, Wheelabrator, appealed the order to the Superior Court of New Jersey, Appellate Division, and that appeal is still pending.<sup>34</sup>

The BPU opened a separate proceeding to develop a definitive determination on the question of REC ownership. The utilities and ratepayer advocate filed the following arguments:<sup>35</sup>

- The FERC Order affirms that REC ownership is a state issue, and therefore the BPU has jurisdiction.
- The BPU is not being asked to preempt PURPA requirements by modifying a previously approved QF contract. Instead it is being asked to clarify which entity is entitled to RECs as a matter of state law and BPU policy. The contracts will not change, and the utilities will continue to pay the same price that was originally approved by the BPU.
- For the purpose of RPS compliance, RECs do not yet exist in New Jersey. Under the restructuring act and current RPS regulations, a generator may not unbundle the RECs from the energy output. (An exception is solar RECs, which the BPU has determined must be used for compliance with the solar portfolio requirement.) Thus, RECs are not severable from QF power until the BPU recognizes the Generation Attributes Tracking System (GATS) being developed by PJM-Environmental Information Services.<sup>36</sup>
- As part of RPS compliance filings, QFs have submitted affidavits to the utilities attesting to the source and quantity of renewable energy sold to utilities under existing contracts. Utilities believe that this attestation that they are being sold renewable energy proves that RECs are being conveyed.
- Because the BPU requires the utilities to commit their QF power supply to serve the BGS load, it is appropriate to require the allocation of the renewable attributes of this power to the BGS suppliers.

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<sup>33</sup> New Jersey Board of Public Utilities, Docket No. EO03050394, "In the Matter of the Provision of Basic Generation Service for Year Two of the Post-Transition Period – Committed Supply Renewable Attributes." Decision and Order, January 29, 2004.

<sup>34</sup> In addition, on June 2, 2005, Wheelabrator companies filed a complaint in the United States District Court, District of New Jersey, seeking declaratory and injunctive relief that would invalidate the BPU order.

<sup>35</sup> New Jersey Board of Public Utilities, Docket No. EO04080879, "In the Matter of the Ownership of Renewable Energy Certificates ("RECS") under the Electric Discount and Energy Competition Act, as it pertains to Non-Utility Generators and the Board's Renewable Energy Portfolio Standards." Decision and Order issued April 20, 2005.

<sup>36</sup> The BPU subsequently recognized GATS for issuing and retiring RECs, and GATS is now in operation.

- The BPU set the price to be paid QFs by the utilities at the PJM billing rate (the marginal cost of incremental power) plus 10%. In addition, in selecting and purchasing power from QFs, utilities were required to use a ranking system that applied non-economic criteria such as fuel type, location, environmental benefits, and efficiency, and were required to give these non-economic criteria significant (at least 20%) weight. New Jersey's implementation of PURPA has therefore always included consideration of the renewable attributes in selecting and pricing QF contracts.
- Ratepayers are already paying the cost of the QF power through non-bypassable transition charges in their electric bills and therefore customers should receive all the benefits of this energy, and should not be required to effectively pay extra costs for REC purchases from these QF projects.

The QFs questioned the authority of the BPU in these matters, arguing that the FERC order is quite clear that, in the absence of specific language in the contract, PURPA does not require the QFs to transfer their RECs to the purchasing utilities.

In addition, the QFs argued that:<sup>37</sup>

- The FERC Order supports their claim that RECs are not automatically transferred to the purchasing utility.
- "Electricity," "electric output," and "contract power output" have never been defined to include the fuel used to generate the power.
- Avoided costs are not intended to compensate the QF for more than capacity and energy.
- If the avoided cost paid for the power includes the RECs, then the value of the energy and capacity without the RECs would be less than avoided cost.
- Purchase prices agreed to at the time of the PURPA contract cannot be revisited by state commissions.
- The FERC Order states that authority to convey RECs must be found in state law, and New Jersey law offers no such authority for automatic conveyance of RECs.
- RECs are a new product that must be contracted for and sold pursuant to its own terms separately from the energy and capacity.
- Any BPU action to assign the RECs to the utilities would be tantamount to taking private property without just compensation.

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<sup>37</sup> New Jersey Board of Public Utilities, Docket No. EO04080879, *op.cit.*

- All QFs, whether using renewable or non-renewable energy to generate electricity, receive the same price determined by the BPU, and thus there is no merit to the argument that there is already an increment built into the contract price for the renewable attributes.
- Unbundled RECs exist and have market value even though the BPU has not yet authorized the creation of RECs to satisfy the state RPS (except for solar RECs).<sup>38</sup>
- RECs should be market-valued and not given free to winners of the BGS bidding process.
- Permitting more recent renewable facilities to realize additional revenues from the sale of RECs, while prohibiting those with pre-existing contracts from doing the same, would unlawfully discriminate against PURPA QFs.

In the discussion in its final order, the BPU noted that its original approval of the QF contracts was “inextricably linked” to the renewable attributes of the facilities. Special consideration was given to renewable projects because of the renewable nature of the power being sold—even though the concept of a tradable REC did not exist at the time the contracts were approved.

The BPU was also swayed by the fact that QF rates were set at the marginal cost of incremental power plus 10% because of the energy efficiency and renewable attributes of QF power, and that the ranking system used to select QF contracts also provided credit for these attributes

The BPU agreed with the utilities that under current state law and regulations, a generator may not sever the renewable attributes of energy from the output itself. Although this is required for solar RECs, for other resources it is dependent on the operation of a Generation Attributes Tracking System (GATS), which at the time was still under development by PJM (the BPU has subsequently approved the use of RECs issued by GATS for compliance with the RPS<sup>39</sup>).

Finally, the BPU was persuaded by the affidavits submitted by the QFs to the utilities, which indicate that in 2001 and 2002 the QFs sold specified kilowatt-hours *of renewable energy* to the utilities and that the power was sold once and only once. In other words, the attestations suggest that the attributes were conveyed because they specified, for example, that wind or landfill gas energy was conveyed, rather than generic electricity that came from a qualifying renewable energy facility using a specific resource.

The BPU therefore found that the utilities are entitled to the benefits of the renewable attributes of the power they are purchasing under existing BPU-approved contracts with renewable QFs. The BPU found that these attributes belong to the purchasing utilities for the duration of those contracts.<sup>40</sup> The decision is under appeal in both state and federal court.

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<sup>38</sup> See footnote 35.

<sup>39</sup> New Jersey Board of Public Utilities, undocketed, In the Matter of the Authorization to Use Class I and Class II Renewable Energy Certificates Issued by PJM-Environmental Information Services, Inc. for Compliance with New Jersey's Renewable Portfolio Standards, Clean Energy Order, August 31, 2005.

<sup>40</sup> New Jersey Board of Public Utilities, Docket No. EO04080879, “In the Matter of the Ownership of Renewable Energy Certificates (“RECS”) under the Electric Discount and Energy Competition Act, as it pertains to Non-Utility Generators and the Board’s Renewable Energy Portfolio Standards.” Decision and Order issued April 20, 2005.

### 3.6 California

California is another state in which ownership of RECs associated with QF contracts has arisen in the context of implementing an RPS. Senate Bill 1078 (Chapter 516, Statutes of 2002) established an RPS that requires certain electric suppliers to increase procurement of renewables to 20% by 2017. The California Public Utilities Commission (CPUC) and the California Energy Commission subsequently moved the target date to 2010. Generation from renewable energy facilities in operation prior to the enactment of the law is included in the standard.

The RPS statute requires the CPUC to establish a baseline for each utility based on the percentage of retail sales procured from eligible renewable resources in 2001.<sup>41</sup> This suggests that existing QF contracts are included in the baseline, but the CPUC asked parties to the RPS rulemaking to comment on the treatment of RECs associated with generation from QFs for which the contract does not expressly identify the RECs or their ownership.<sup>42</sup>

Several stakeholders argued that the legislature established the 20% RPS with the understanding that each utility would be starting from a baseline that includes substantial amounts of QF generation. If the renewable attributes of such QF deliveries are being recognized for the purpose of establishing and maintaining a utility's baseline, it is argued, they should be retired upon the utility's acceptance of deliveries under the PURPA contracts. Otherwise, if the RECs were sold to a third party, they would be double-counted with utility baseline procurement from QFs, and double-counting is prohibited by SB 1078.

In addition, those in favor of transferring the RECs from the QFs to the purchasing utilities made the following arguments:

- The QF has no separate REC to sell to a third party because the CPUC requires that the RECs remain bundled with the power, and the QF is selling power to the utility.
- There is no basis in state law for creating an unbundled REC that exists separate from the energy delivered to the utility, nor does state law allow utilities or others with an RPS obligation to satisfy compliance through the purchase of unbundled RECs.
- If QF deliveries under an existing PURPA contract were no longer counted against the utility's baseline because the renewable benefit had been conveyed to a third party, the utility could be required to obtain replacement RECs to meet the statutory 20% goal, resulting in a windfall to QFs at California ratepayers' expense.
- A few parties requested that, in the future, the CPUC approve only QF contracts that convey the RECs to the purchasing utility—or at least clarify its rules going forward.

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<sup>41</sup> California Public Utilities Code Section 399.15(a)(3).

<sup>42</sup> CPUC Rulemaking 04-04-026, Order Instituting Rulemaking to Implement the California Renewables Portfolio Standard Program, Phase 2 Issues, December 16, 2004.



Arguing that QFs should retain ownership of RECs, the Independent Energy Producers Association (IEP) stated that either QFs should retain the RECs created by QF generation, or QFs should be compensated for the RECs they produce.<sup>43</sup> IEP goes on to argue that RECs represent a property right separate from energy and capacity, and that it would be a taking of private property without compensation (in violation of the Fifth Amendment to the U.S. Constitution) if the CPUC were to decide that contracts existing before RPS legislation was adopted conveyed the RECs to the purchasing utilities.

IEP acknowledged, however, that the utilities purchasing QF power may, under state law, *count* the RECs from QF purchases towards compliance with the baseline obligations of the RPS. Nonetheless, IEP maintained that the CPUC cannot interpret QF contracts to convey *ownership* of RECs to the utilities.

In IEP's view, this apparent contradiction could be resolved by the CPUC by treating the use of attributes from QF contracts merely as a compliance (counting) issue, and expressly not as a matter of property ownership. To eliminate double counting, IEP argued that the CPUC should encourage an extension of standard offer QF contracts for another five years, and direct the QFs and utilities to negotiate agreements for compensation for the RECs. This would allow the utilities to have ownership of the RECs and respect the property rights of the QFs, while reducing the possibility of double counting.

In reply, one utility argued that QFs have no property right to environmental attributes associated with renewable QF generation that has been counted towards a purchasing utility's baseline under the RPS. In fact, the legislature's allocation of QF energy to the RPS baseline means there is no separable property right.

A consumer organization responded to the unconstitutional taking claim by citing a number of legal precedents allowing uncompensated taking of property in a variety of situations. There is no entitlement to compensation, it asserted, because (1) there is no reasonable expectation of protection, for example a statute conferring property rights in RECs; (2) there is no permanent occupation of private property; (3) the restriction on RECs does not deprive the QF of all economic value attached to its property; and (4) restrictions on property may be allowed as long as they promote the general welfare. The fact that a property interest cannot be fully exploited is not sufficient to turn government restrictions into a compensable taking.<sup>44</sup>

Finally, several parties stated that it is premature to decide the issue because the CPUC has also invited comments on whether unbundled RECs can even be used to satisfy the state's RPS obligations.<sup>45</sup> On November 18, 2005, the CPUC stated its intent to explore the possibility of

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<sup>43</sup> CPUC Rulemaking 04-04-026, *Order Instituting Rulemaking to Implement the California Renewables Portfolio Standard Program*, "Opening Brief of Independent Energy Producers Association," January 18, 2005.

<sup>44</sup> CPUC Rulemaking 04-04-026, *Order Instituting Rulemaking to Implement the California Renewables Portfolio Standard Program*, "Reply Brief of The Utility Reform Network on Phase 2 RPS Issues," February 4, 2005.

<sup>45</sup> California Public Utilities Commission, Rulemaking 04-04-026, *Order Instituting Rulemaking to Implement the California Renewables Portfolio Standard Program*, Phase 2 Issues, December 16, 2004.

allowing unbundled RECs to count toward RPS compliance in the future, but declined to initiate the use of unbundled RECs immediately because of implementation questions and issues.<sup>46</sup>

Regardless of the fate of the regulatory discussions described above, today renewable QF purchases are being counted by the utilities for the purposes of RPS compliance. This is unlikely to change. In fact, the California Energy Commission has established a renewable project eligibility certification process that allows the state's utilities to certify QF projects, rather than requiring the QF facilities to undertake that certification themselves. The California legislature has also grappled with this issue, and though legislation has not yet passed, bills under consideration would expressly allocate the RECs from QFs to the utility purchaser.<sup>47</sup>

### 3.7 Texas

The Texas RPS established RECs as the means of compliance with the requirement. In all cases, Texas assigns RECs to the registered owner of the renewable project that generates them. Texas RPS rules state: "A REC will be awarded to the owner of a renewable resource when a MWh is metered at that renewable resource."<sup>48</sup>

In Texas, however, only new renewable facilities (defined as in service on or after September 1, 1999) are issued RECs, because the RPS emphasis is on new capacity. Existing renewable facilities, although eligible to satisfy a portion of the RPS, are issued "REC offsets," which are not tradable. They must be conveyed with the underlying power. Older QF contracts that are silent on REC ownership therefore do not qualify for tradable RECs, allowing Texas to largely sidestep the issue of REC ownership for existing QFs. Although the rule for new renewables awards the RECs to the generator, in practice new QF contracts generally convey to the utility both power and RECs by explicit agreement between the contracting parties (Hurlbut 2005).

### 3.8 North Dakota

Otter Tail Corporation proposed revisions to an existing tariff in North Dakota for standard rates for purchases from small Qualifying Facilities. The tariff, updated annually, sets the current year's avoided cost to be paid to small QFs. In 2005, in addition to proposing an avoided cost for energy and capacity, the utility proposed a separate value for RECs of 0.2 cents/kWh.<sup>49</sup> This incremental value is in recognition of the FERC order that PURPA avoided costs pay only for energy and capacity, and not for RECs. The utility is seeking RECs to comply with a renewable energy objective in Minnesota, and to satisfy its voluntary commitment to achieve the same level of renewables in other parts of its service area, including North Dakota. The proposed RECs

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<sup>46</sup> CPUC Rulemaking 04-04-026, Decision 05-11-025, Opinion on Participation of Energy Service Providers, Community Choice Aggregators, and Small and Multi-Jurisdictional Utilities in the Renewables Portfolio Standards Program, November 18, 2005.

<sup>47</sup> Assembly Bill 1362 (Levine) would have required that the CPUC to adopt rules that authorize the use of RECs to satisfy the RPS, and would have given credit for renewable generation pursuant to existing QF contracts (unless they contain explicit ownership language), as well as future QF contracts, to the purchasing utility for use in its RPS baseline. Senate Bill 107 (Simitian and Perata), although different from AB 1362 in other respects, would have had the same effect with respect to REC ownership from QF contracts.

<sup>48</sup> Texas Administrative Code, Title 16, Part II, Chapter 25.173(k)(1).

<sup>49</sup> North Dakota Public Service Commission Case No. PU-05-193, "In the Matter of Otter Tail Power Company's Rates for Small Power Production and Cogeneration," filed March 31, 2005.

tariff, however, would not be voluntary, and would require that the RECs be transferred to the utility purchasing the energy, limiting the generator's options to seek a better deal for its RECs elsewhere. The North Dakota Public Service Commission staff recommended that the issue of REC purchases be addressed in a rulemaking docket for the Midwest Renewable Energy Tracking System, where all interested parties would have an opportunity to be heard.<sup>50</sup> The PSC, however, approved the Otter Tail tariff as originally proposed.

### 3.9 Oregon

Unlike most of the other states previously discussed, Oregon does not have an RPS or similar renewable energy obligation. However, the state has a public purpose charge, in part to fund the above-market costs of generation from new renewable resources. Its green power options have sizable participation and preferences for local resources. The REC ownership issue arose as a result of the Oregon Public Utility Commission's (OPUC) investigation into its PURPA policies. The OPUC opened a docket in June 2005 to address the unanswered question of REC ownership. OPUC staff proposed that, unless otherwise agreed to by separate contract, the owner of the renewable energy facility should retain ownership of the RECs associated with electricity sold to an electric company pursuant to QF contracts, and pursuant to a net metering or other power production tariff.<sup>51</sup> Staff proposed that this would apply, from the date the rules were adopted, to RECs generated under both pre-existing and new contracts.

The main arguments provided by staff, and comments provided in support of the staff proposal, were:

- According to the FERC order, avoided cost pays only for energy and capacity.
- Oregon's calculation of avoided cost is currently based on costs associated with a natural gas-fired plant that does not have associated RECs.
- The owner of an energy production facility owns *all* of the value produced from the facility, while avoided cost rates, as currently calculated, recompense owners only for the energy that is generated, not for any associated environmental benefits that might have value on the market.
- Requiring facility owners to transfer environmental benefits with energy at current avoided cost rates alone would result in windfalls to purchasing electric companies.
- Environmental attributes are a separate and valuable product that utilities should pay for if they want them.
- Payment for RECs may be critical to a project's economic feasibility.
- Awarding REC ownership to the generator provides an incentive to develop more renewable energy.

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<sup>50</sup> North Dakota Public Service Commission Case No. PU-05-364.

<sup>51</sup> Oregon Public Utility Commission, Docket No. AR 495, "In the Matter of a Proposed Rulemaking to Adopt and Amend Rules Related to Ownership of the Non-energy Attributes of Renewable Energy (Green Tags), Energy Service Supplier Certification Requirements, and Use of the Terms 'Electric Utility' and 'Electric Company.'" Staff report for August 2, 2005 Public Meeting, issued July 28, 2005.

Opponents to the staff proposal asserted that RECs from QF contracts entered into prior to the effective date of the OPUC rule should belong to the purchasing utility. Their comments against the staff proposal included:

- RECs were being conveyed with PURPA contracts even before they were recognized and valued. Just because an attribute subsequently acquires a separate market value does not mean that particular attribute now warrants separate compensation.
- Utilities have reported the output of existing renewable QFs as renewable energy in various environmental reporting programs based on the reasonable assumption that contracts with renewable QF generators represent renewable energy.
- Attestations by the QF generator that the utility is in fact purchasing energy from a specified resource would likely prohibit another party's ability to lawfully make the same claim, supported by fair trade, truth-in-advertising, and antifraud statutes.
- QFs whose costs are fully covered by avoided cost payments should not be allowed to earn a windfall profit.
- For future contracts entered into after the date of the OPUC rule, unless otherwise agreed to by contract, the QF should get the RECs only if two conditions are met: (1) the reasonable cost of the QF output exceeds the avoided cost paid by the utility, and (2) the utility is not subject to an RPS. The OPUC should create proxy resources for the various types of renewable facilities in order to determine "reasonable" cost and whether a particular QF's cost falls at, above, or below the avoided cost payments that are mandated by PURPA.
- Giving RECs to generators could depress prices in regional RECs market and discourage new renewables development because the QF generators could afford to sell the RECs cheaply, assuming that avoided cost payments already adequately compensate the QFs for their costs.
- If there was an RPS in Oregon, awarding the RECs to the generators would result in the utilities having to pay the generators twice, once for energy and capacity based on avoided cost, and a second time for RECs, with no additional benefit to Oregon ratepayers.
- If the RECs are awarded to the utility, it should not be allowed to resell them but should retire them for the benefit of ratepayers.

The OPUC agreed with the staff position that Oregon rates based on avoided costs do not compensate QFs for any social or environmental benefits. The OPUC also cited that this conclusion was consistent with FERC's determination that avoided cost rates under PURPA are not intended to compensate a QF for more than capacity and energy.

The OPUC decided to support the staff's proposed rule with respect to new contracts (executed on or after the effective date of the rule), but declined to evaluate arguments with respect to existing contracts, stating that this "raises questions of contract interpretation that are outside the scope of this proceeding."<sup>52</sup> As modified, the rule recognizes RECs produced under a future energy purchase contract as a discrete commodity to be owned and managed by the owner of the renewable energy facility. The Commission stated in its rulemaking order, "Should the law or

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<sup>52</sup> Oregon Public Utility Commission, Docket No. AR 495, "Rulemaking to Adopt and Amend Rules Related to Ownership of the Non-energy Attributes of Renewable Energy (Green Tags), Energy Service Supplier Certification Requirements, and Use of the Terms 'Electric Utility' and 'Electric Company.'" Order No. 05-1229, November 28, 2005. <http://apps.puc.state.or.us/orders/2005ords/05-1229.pdf>

circumstances change, we will reevaluate the rules as necessary,” leaving the door open to revisit the subject of REC ownership in the event the state adopts an RPS.

### 3.10 Pennsylvania

The question of REC ownership is currently under review in Pennsylvania. A QF contract initially signed in 1986, and silent on the issue of RECs, is the basis for a regulatory proceeding. Metropolitan Edison Company (Met Ed) entered into a 30-year power purchase agreement with the York County Solid Waste and Refuse Authority, owner and operator of a 34.7 MW Qualifying Facility. Now that Pennsylvania has adopted an Alternative Energy Portfolio Standard, Met Ed wants to claim the RECs from the York County facility, and York County wants to sell the RECs to another buyer. On February 22, 2005, Met Ed and Pennsylvania Electric Company (Penelec) therefore filed a petition with the Pennsylvania Public Utility Commission seeking a declaratory order confirming that they have the right and title to the RECs or other environmental attributes associated with the facility. The PUC assigned the issue to an Administrative Law Judge to hear the arguments and to recommend a decision.<sup>53</sup> Arguments are expected to be heard in the Spring of 2006.

### 3.11 Utah

Because REC ownership issues have arisen in Utah as part of a PacifiCorp IRP proceeding, the parties' positions have been provided in the context of how new renewable resources are to be acquired and priced.<sup>54</sup> Several parties argued that the utility should own the RECs, for the benefit of ratepayers, if the QF is receiving competitively bid or IRP-determined prices. QF developers, however, argued that the RECs should be retained by the project owners because other non-renewable QF resources do not produce RECs yet are paid the same avoided costs. According to the QF perspective, the facility owner should have the option of accepting the competitive or IRP-determined price and transferring the RECs to the utility, or accepting a lower price (adjusted for the fair market value of RECs) for the energy only and keeping the RECs for sale to some other party. The utility did not respond to this suggestion.

An environmental organization argued, in response to utility testimony, that the PURPA requirement to purchase electricity from renewable QFs does not mean that contracts must convey the RECs to the utilities. Utilities view this conveyance as a necessary condition of the QF contract, but this party, like FERC, argued that being renewable is merely a qualifying characteristic that makes a generating facility eligible for a contract, and that RECs need not remain bundled with the electricity produced by QFs.

The utility pointed out that if the RECs do not accompany the energy and capacity acquired through a QF contract, then the utility cannot consider or label the energy as renewable. Instead

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<sup>53</sup> Pennsylvania Public Utility Commission, Docket No. P-00052149. “Petition for a Declaratory Order Regarding the Ownership of Alternative Energy Credits and any Environmental Attributes Associated with Non-Utility Generation Facilities under Contract to Pennsylvania Electric Company and Metropolitan Edison Company,” March 23, 2005.

<sup>54</sup> Public Service Commission of Utah, Docket No. 03-035-14. “In the Matter of the Application of PacifiCorp for Approval of an IRP Based Avoided Cost Methodology for QF Projects Larger than 1 Megawatt.” <http://www.psc.state.ut.us/elec/Indexes/0303514ndx.htm>

it would be deemed “generic” energy or capacity to avoid a double claim on the renewable attributes.

In its Report and Order, the PSC noted that PacifiCorp’s 2004 IRP attributed a value of \$5/MWh to the RECs associated with wind projects, and this led, in part, to the selection of 1400 MW of wind power as cost effective in the IRP. The PSC concluded that, as long as the utility is within the 1400 MW target for wind, the avoided cost to be paid for wind QFs should be the market price determined by the most recent competitively sourced contract for wind. If the competitively determined price includes payment for the RECs, the avoided cost to be paid to wind QFs therefore reflects the value of the RECs. In this instance all parties agreed that the utility should receive the RECs. However, parties representing wind developers argued that in the case of QF contracts for wind, they should be able to buy back the RECs from the utility at the value assumed in the IRP. The PSC agreed, stating, “REC ownership is a contractual issue between the QF and the [utility]. QFs will be allowed to buy back the REC at the IRP REC value if the [utility] owns the REC in the last executed wind market-based RFP contract.”<sup>55</sup>

Within a month of this decision, several parties requested rehearing or clarification for a variety of reasons, including several relating to RECs.

PacifiCorp requested rehearing of the decision to allow QFs to repurchase the RECs from the utility, stating that a QF who wishes to buy back the RECs from the utility should not be entitled to the market proxy price. The utility further argued that the avoided cost pricing for wind is inextricably tied to the value of the REC, and therefore ownership of the RECs must remain with the utility if its customers are to receive full value for the cost of this resource.

Wind developers responded to the utility’s argument that the QFs should not be allowed to buy back the RECs at the IRP proxy price because the RECs are inextricably tied to the energy, stating:

- The utility failed to present a response and evidence on the REC buyback issue during the hearing.
- Utah ratepayers receive benefits of wind power that were identified in the IRP, including reduced exposure to natural gas price risk and consequent rate stability. RECs will not provide these benefits to the utility and its customers.
- One QF asserted that the utility supplies its voluntary green pricing customers with RECs purchased separately from energy, thereby undermining its argument that the energy and RECs are inextricably linked. Following the utility’s logic, the QF reasons, green pricing customers are therefore not getting full value for their voluntary purchases.

In its Order on Reconsideration and Clarification, the PSC affirmed the right of the QF to purchase the RECs at the assumed IRP value if the RECs were included in the market-based proxy for calculating avoided costs for wind QFs. The PSC was influenced by the FERC Order stating that PURPA avoided costs do not convey the RECs, in the absence of an express contractual provision, and concluded that ownership of RECs is a separable contractual issue

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<sup>55</sup> Public Service Commission of Utah, Docket No. 03-035-14, Report and Order, October 31, 2005.

from the avoided cost of wind. The PSC stated, “Ratepayers are indifferent to whether the [utility] contractually acquires ownership of the REC and then sells the REC to reduce the net cost of the resource or whether the [utility] contractually pays a price net of the REC to begin with. We are unaware of any Utah or federal law that eliminates the IRP described value of wind generation to ratepayers once the REC is sold. Indeed, our understanding of the RECs’ value is to offset some of the cost of wind resource development, thus, promoting it relative to other alternatives.”<sup>56</sup>

### 3.12 Colorado

Colorado voters adopted an RPS law, known as Amendment 37, in November 2004. The law states that RECs may be used to meet the requirement, but it does not address REC ownership under QF contracts.<sup>57</sup> During the proceeding before the Colorado Public Utilities Commission to develop rules implementing Amendment 37, one utility was the first to call for clarification of REC ownership under QF contracts.<sup>58</sup> In its initial comments, the utility asserted that if the contract is silent as to REC ownership, the utility should be deemed to have purchased all the attributes of the power and should be able to count the RECs or the bundled energy and RECs towards meeting the RPS. Its primary argument was that REC ownership has significant cost implications to the utility and its customers. Adopting a rule granting the RECs to the utility would help avoid significant expenditures by the utility resulting either from litigation or from having to acquire additional renewable energy or RECs to satisfy the RPS.

In reply, a county stated that ownership should be resolved through contractual negotiation rather than through a rulemaking process. It also questioned why the utility should receive the RECs when the primary investment came from the QF.

An association of independent energy producers also responded, arguing that the utility’s position is illogical and unfair, and that it violates the FERC Order. Specifically, the price paid for QF energy (and in some cases capacity) was based on the utility’s avoided costs, and Colorado avoided costs have been based on a coal plant. Thus the compensation does not include any recognition of the economic value of the RECs.

The association also cited the FERC Order in support of its position, interpreting it to say that QF contracts do not convey RECs to the purchasing utility—absent express provision to the contrary in the contract itself. It acknowledged that FERC declared that a state may decide that a QF sale of power to a utility transfers ownership of state-created RECs, but it also emphasized FERC’s statement that the state must find this requirement in state law, not PURPA. The association argued that there is nothing in Amendment 37, nor in state contract law, that would give a state-law basis for such a result.

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<sup>56</sup> Public Service Commission of Utah, Docket No. 03-035-14, Order on Reconsideration and Clarification, February 2, 2006. <http://www.psc.utah.gov/elec/06orders/Feb/0303514orc.pdf>

<sup>57</sup> Colorado Revised Statutes §40-2-124.

<sup>58</sup> All comments and documents in the proceeding may be found at Colorado Public Utilities Commission Docket No. 05R-112E, In the Matter of the Proposed Rules Implementing Renewable Energy Standards 4 CCR 723-3. <http://www.dora.state.co.us/puc/rulemaking/05R-112E.htm>

A group response representing mainly renewable energy advocates pointed out that if a utility were to be granted ownership of all renewable attributes, it should also be responsible for the environmental attributes and liabilities of non-renewable power plants from which it purchases but does not own—contingencies that are not recognized on the utility's books. Utilities should not be able to pick and choose which attributes it would like to own among all the purchased energy for which it contracts. This group also cited the FERC Order, drawing attention to the statement that environmental attributes are not conveyed to the purchasing utility in exchange for avoided cost payments, and that attributes other than energy and capacity are separately saleable.

On October 7, 2005, the Colorado Public Utilities Commission issued an initial decision on the proposed rules. The PUC concluded that a utility can count towards its RPS the RECs from existing QF contracts that are otherwise silent as to ownership. In reaching this conclusion, the PUC cited its interpretation of the voters' intent. In approving Amendment 37, the PUC reasoned, voters viewed it as a means to "jump start" utilities to acquire new renewable energy resources, not to pay existing renewable energy providers additional money.<sup>59</sup> The proposed rules require that utilities use competitive bidding for renewable energy systems larger than 10 kW (more recently modified to larger than 100 kW), and that the resulting new contracts require the seller to relinquish all RECs associated with contracted electricity supply to the buyer. The presumption is that the value of the RECs will be reflected in competitively bid prices. Thus the generator will be compelled to transfer the RECs but will be appropriately compensated.

Several parties requested a rehearing on aspects of this initial decision. Additional arguments were put forward regarding ownership of RECs from pre-existing QF contracts.

Various parties argued in favor of the QF rights to the RECs from contracts that pre-date the adoption of the RPS:

- Allocating RECs to the utilities would result in a windfall for the utilities that were satisfied with contract terms entered into long ago without the promise of supplementary values in the future.
- The purchase of power without the RECs is analogous to the purchase of land without mineral rights. Land sales without mineral rights provide no rights to future value if minerals are discovered later. When a contract does not expressly convey mineral rights (or RECs) those severable property interests are reserved for the seller.
- Voters intended that utilities spend RPS funds on renewable resources in the most effective manner, which includes purchasing RECs associated with any given contract.
- FERC's requirement that state decisions on REC ownership be based on state law has not been met. Amendment 37 and the implementing RPS statute makes clear that a utility's acquisition of the electric power output of any renewable power facility and its acquisition of the same facility's associated intangible RECs are separate and distinct ways of satisfying the

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<sup>59</sup> Colorado Public Utilities Commission, Docket No. 05R-112E, In the Matter of the Proposed Rules Implementing Renewable Energy Standards 4 CCR 723-3, Decision No. C05-1461, Order Adopting Rules, October 7, 2005.



RPS. The implementing statute does not distinguish between pre-RPS and post-RPS suppliers of renewable energy.

- In the case of a city with an interest in a QF, awarding the RECs to the utility is a retroactive rule that violates a state constitutional prohibition against cities giving aid to corporations.
- The proposed draft rules would be an unconstitutional taking by requiring QFs to relinquish a valuable asset without compensation.

The principle utility in the state argued in favor of utility rights to the RECs from pre-existing contracts:

- Allocating RECs to the QFs would result in a windfall for existing QFs who were satisfied with contract terms entered into long ago without the promise of supplementary remuneration in the future.
- Under Colorado law, when an asset or commodity is not specifically reserved to the seller, the full asset or commodity is deemed to have been transferred to the buyer.
- Under Colorado mineral law, in order to retain an interest in the minerals underlying the surface, the seller must expressly reserve them. In order to retain ownership of the RECs, the seller should have expressly reserved them, otherwise those attributes should not be considered to have been severed from the energy.
- Amendment 37 voters intended to spend RPS funds to encourage the construction of new renewable resources, and not to pay more to obtain RECs from existing renewable resources that already sell their output to the utility.
- Because the RECs were conveyed with the energy when the contracts were executed, the utility already owns the RECs and no donation of public property to a private corporation has taken place.
- Even if the Commission decision was to constitute a donation, such a donation is permissible if it serves a public purpose.
- Awarding the RECs to the utility does not constitute an unconstitutional taking because the original contracts conveyed both the energy output and all of the attributes of that energy, unless those attributes were severed and explicitly reserved.

On rehearing, the PUC decided, “As the purchasers of energy with which the RECs are intertwined, the [utilities] have ownership of the RECs.”<sup>60</sup> The PUC based its decision primarily on a finding that the silence in the contracts as to REC ownership does not create ambiguity,

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<sup>60</sup> Colorado Public Utilities Commission, Docket No. 05R-112E, In the Matter of the Proposed Rules Implementing Renewable Energy Standards 4 CCR 723-3, Decision No. C06-0091, Order Granting, in Part, and Denying, in Part, Rehearing, Reargument and Reconsideration, January 27, 2006.

notwithstanding the different opinions of the parties, and that absent ambiguity it could not impose its own interpretation of the intent of the parties. The PUC also was persuaded by the discussion of mineral rights that for the QF to retain the RECs, the RECs should have been expressly reserved from the sale of energy.

### **3.13 Rhode Island**

The Rhode Island RPS rulemaking provided the forum for addressing ownership of RECs. To initiate the rulemaking, the Rhode Island PUC appointed a group of stakeholders to create draft RPS rules. The group's final report proposed, "With the exception of contracts for generation supply entered into prior to 2002, initial title to NEPOOL GIS Certificates from Off-grid and Customer-sited Generation Facilities and from all other Eligible Renewable Energy Resources shall accrue to the owner of such a Generation Unit, unless such title has been explicitly deemed transferred pursuant to contract or regulatory order."<sup>61</sup>

This provision of the draft survived unchanged through the draft rules as proposed by the PUC and into the final rules adopted by the PUC.<sup>62</sup> This suggests that for contracts signed before 2002, either the PUC has opted to remain silent on REC ownership, or has implicitly granted ownership to the purchaser of the energy under such contracts. This lack of clarity for older contracts may have been acceptable because the Rhode Island RPS applies primarily to new renewable facilities (though existing projects are allowed to meet a portion of the RPS targets).

### **3.14 Wisconsin**

The Wisconsin RPS, originally adopted in 1999, is different from other state requirements in that RECs are created only by utilities and only for renewable energy that is in excess of what is needed to comply with the RPS.<sup>63</sup> Neither the RPS statute nor the implementing regulations address the question of REC ownership, nor are QF contracts mentioned in this context. However, it appears that utilities purchasing QF output and using that energy to satisfy the RPS are expected to count the renewable attributes from the QF towards compliance. In effect, attributes are conveyed with the energy to the purchasing utility, which may, in turn, sell to other parties, in the form of a REC, any excess not used for RPS compliance. By default, QF RECs appear to be conveyed to the utility. There is nothing in the recently adopted revisions to the Wisconsin RPS (SB 459) that would change this interpretation, although the Public Service Commission is empowered to write new rules pertaining to RECs.

### **3.15 Minnesota**

The statute adopting the Minnesota Renewable Energy Objective states that the Public Utilities Commission may establish a program for tradable credits, and that in lieu of generating or

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<sup>61</sup> Final Report of the Rhode Island Renewable Energy Standards Negotiated Rulemaking Group Submitted to the RI PUC August 15, 2005, at <http://www.ripuc.org/eventsactions/docket/3659page.html>.

<sup>62</sup> Rhode Island Public Utilities Commission, Docket 3659 - Negotiated Rulemaking to Promulgate Rules and Regulations to Implement a Renewable Energy Standard in compliance with R.I.G.L. Section 39-26-1. Rules and Regulations Governing the Implementation of a Renewable Energy Standard, adopted November 30, 2005. <http://www.ripuc.org/eventsactions/docket/3659page.html>

<sup>63</sup> Wisconsin Administrative Code PSC 118.03, <http://www.legis.state.wi.us/rsb/code/psc/psc118.pdf>.

procuring energy directly to satisfy the renewable energy objective, a utility may purchase RECs to meet its objective. The MPUC has noted general support for a REC tracking system, and is awaiting recommendations from stakeholders on the development of a Midwest Renewable Energy Tracking System (M-RETS).<sup>64</sup> Until a tracking system is implemented, it appears that RECs will remain bundled with energy. As a result, REC ownership flows to the electricity purchaser, and the issue remains unaddressed except by default.

### 3.16 Arizona

The Arizona Environmental Portfolio Standard (EPS) was first established in 1996 as a solar standard, modified in 1998, and changed and expanded in 2001. For several years the Arizona Corporation Commission (ACC) has encouraged re-examination of the EPS by stakeholder working groups and ACC staff. This has resulted, most recently, in a proposal to repeal the existing EPS rules and replace them with a Renewable Energy Standard.<sup>65</sup> The staff report includes a subheading, Ownership of Renewable Energy Certificates, under which staff recommend that ownership of RECs reside, initially, with the generator. There is no discussion of PURPA Qualifying Facilities and the impact of the proposed rule on existing contracts.

After review, the ACC decided to issue a Notice of Proposed Rulemaking based on draft rules prepared by staff. These proposed rules include the statement, “An Affected Utility may transfer Renewable Energy Credits to another party and may acquire Renewable Energy Credits from another party. A Renewable Energy Credit is owned by the owners of the Eligible Renewable Energy Resource from which it was derived unless specifically transferred...Any sales contract of kWh by a system owner shall explicitly describe the transfer of rights of both electricity and its Renewable Energy Credits.”<sup>66</sup> Public comment will begin soon.

### 3.17 PURPA QF State Summary

In all but one case (New Mexico) the determination of QF REC ownership has been made by state regulation, as opposed to legislation, though in many instances these determinations have been informed by legislative guidance, especially in the case where state RPS policies are in place that imply utility ownership of QF RECs.

Table 1 summarizes state determinations so far on the ownership of RECs within the context of QF generation and PURPA. Treatment of REC ownership varies significantly based on whether the QF contract pre-dates a generic regulatory determination or whether the regulation applies to new QF contracts (or at least post-dates a regulatory determination). The older pre-existing contracts are generally silent on the issue of ownership and therefore present a greater challenge,

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<sup>64</sup> Minnesota Public Utilities Commission, Docket 04-0139, Second Order Implementing Minn. Stat. 216B.1691, Opening Docket to Investigate Multi-State Program for Tracking and Trading Renewable Credits, and Requesting Periodic Updates from Stakeholder Group, October 19, 2004. <http://www.puc.state.mn.us/docs/orders/04-0139.pdf>

<sup>65</sup> Arizona Corporation Commission Docket No. RE-00000C-05-0030, Proposed Amendments to the Environmental Portfolio Standard Rules, February 2006. <http://www.cc.state.az.us/utility/electric/EPS-StaffRpt-02-03-06.pdf>

<sup>66</sup> Arizona Corporation Commission Docket No. RE-00000C-05-0030, In the Matter of the Proposed Rulemaking for the Renewable Energy Standard and Tariff Rules, Decision No. 68566 issued March 14, 2006, Attachment A at Section R14-2-1803. <http://www.cc.state.az.us/utility/electric/RES-03-14-06.pdf>

but without guidance, buyers and sellers may be stalemated in negotiation of new contracts as well.

In most cases states have opted to establish that the utility purchaser will have title to the underlying RECs for existing QF contracts, while several states award RECs resulting from new contracts to the QF. These determinations are especially common in states with RPS mandates where existing renewable generation is eligible. In these instances, state policymakers are apparently concerned that conveyance of RECs to existing QF generators would unnecessarily raise the cost of the RPS policy.

**Table 1. State Positions on REC Ownership under PURPA QF Contracts**

<b>RECs Conveyed to Power Purchaser</b>	<b>Proceeding in Process (←leaning→)</b>	<b>RECs Retained by QF Unless Otherwise Stated in Contract</b>
CT (existing)	AZ→	CO (new)
CO (existing)	←CA (existing)*	NV (new)
ME (existing)*	PA	OR (new)
MN (existing)**		RI (new)
ND (existing and new, with compensation)		TX (new)
NJ (existing)		UT (new)
NM (existing and new)		
NV (existing)		
TX (existing)		
WI (existing)**		

\* Maine and California currently count PURPA QF contracts towards RPS, without specifically requiring RECs to be transferred to the buyer.

\*\* Renewable attributes appear to be conveyed with underlying energy deliveries, by default, for purpose of compliance with state RPS requirements, but treatment of RECs is not stated clearly.

## 4. Net Metering and Distributed Generation

Most of the net metering laws or rules now in place in roughly 40 states were developed and adopted without consideration of RECs, and therefore do not address REC ownership. As with QF contracts, states with an RPS are more likely to have addressed ownership of RECs under net metering, especially if small behind-the-meter generation is eligible to satisfy the RPS. A few states do not mention net metering explicitly, instead addressing on-site or customer-owned generation, and at least two states treat the question of REC ownership in distributed generation proceedings. Below we highlight discussions that have occurred in 12 states and the District of Columbia regarding RECs treatment for net-metered and distributed generation facilities.

Where this issue has not been explicitly addressed, many stakeholders subscribe to the basic premise that RECs belong to the system owner until they are explicitly sold or otherwise legally transferred to another party, as might be required or encouraged by state policy. Projects that rely on net metering, however, potentially face a fundamental issue similar to that facing PURPA QFs, namely that renewables are often eligible for net-metering precisely because they are “renewable.” As a result, must the net-metered facility convey the RECs to the utility as a condition of being net-metered, or is renewable energy merely a threshold condition for eligibility, leaving the RECs in the hands of the net-metered facility owner?

Little debate along these lines has occurred, and in fact the ownership of net-metered RECs generally has not received nearly the level of discussion that PURPA QFs have experienced. Nevertheless, it would be helpful for states to clarify REC ownership under net metering, and states that have not already adopted net metering rules will have an opportunity to do so as a result of the Energy Policy Act of 2005 - Section 1251 requires state commissions and non-regulated electric utilities that have not already adopted net metering to consider doing so. If such states and utilities decide to adopt net metering, it would be a good time to address and remove uncertainty about REC ownership.

The order of presentation here follows a rough chronology of when states addressed REC ownership under net metering and distributed generation.

### 4.1 Nevada

Nevada law holds that if the net-metered customer provides net excess generation to the utility during the billing period, the net excess generation shall be counted by the utility towards compliance with the state RPS.<sup>67</sup>

Regulations developed pursuant to the statute specify that RECs generated by a net-metered renewable energy system must be assigned to the owner of the system, except that any excess electricity that is fed back to the utility is deemed to be renewable electricity generated or acquired by the utility to comply with the Nevada RPS. To avoid double-counting, RECs associated with this net excess generation are owned by the utility.<sup>68</sup> In this situation, customer-

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<sup>67</sup> Nevada Revised Statutes 704.775(c)(2).

<sup>68</sup> Nevada Administrative Code 704.8927.

generators own the RECs associated with energy generated and consumed on-site, unless otherwise transferred (see Section 5 for a discussion of such transfers as a condition of receiving a state rebate for PV).

## 4.2 New Jersey

In its net metering rule, the New Jersey Board of Public Utilities is explicit that customers eligible for net metering own the RECs associated with the electricity they generate. Customers with eligible generation may obtain RECs from the BPU and sell them to electric suppliers to meet New Jersey's RPS, which has a specific tier for solar, or for other purposes.

"A customer-generator that is eligible for net metering owns the renewable attributes of the electricity it generates on or after October 4, 2004, unless there is a contract with an express provision that assigns ownership of the renewable attributes.

A customer-generator that owns renewable attributes may trade or sell the attributes to another person, or may apply to the Board in accordance with N.J.A.C 14:4-8.9 for issuance of Solar Renewable Energy Certificates, or SRECs, based on solar electric generation. Once the PJM's Generation Attribute Tracking System (GATS), or another tracking system approved by the Board, is operational, the owner of renewable attributes may apply for issuance of Class I renewable energy RECs. If RECs or SRECs are issued, the customer-generator or other recipient of the RECs or SRECs may trade or sell the REC or SREC, or may trade or sell the REC or SREC through an aggregator, or through a trading program authorized by the Board."<sup>69</sup>

## 4.3 Minnesota

Minnesota has had a net metering requirement since 1983, but it is limited to installations of up to and including 40 kW. In 2001, the Minnesota Public Utilities Commission initiated a proceeding to establish interconnection standards for on-site distributed generation (DG), meaning customer-owned generating facilities with a capacity of up to 10 MW. A stakeholder group working under the leadership of the Minnesota Department of Commerce developed recommendations, including ownership of and payment for RECs and emission credits, which were considered by the PUC. In its order adopting standards, the PUC decided that:<sup>70</sup>

"The utility must buy all the energy offered for sale by the DG customer selling the power...

A DG customer who installs a renewable DG facility should be paid the avoided cost of "green power" to the extent that installation of the DG facility allows the utility to avoid the need to

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<sup>69</sup> N.J.A.C. 14:4-9, Net Metering and Interconnection Standards for Class I Renewable Energy Systems.

<sup>70</sup> Minnesota Public Utilities Commission, Docket No. E-999/CI-01-1023, "In the Matter of Establishing Generic Standards for Utility Tariffs for Interconnection and Operation of Distributed Generation Facilities Under MN Laws 2001, Chapter 212." Order Establishing Standards issued September 28, 2004. See Attachment 6, "Guidelines for Establishing the Terms of the Financial Relationship Between an Electric Utility and a Distributed Generation Customer with No More Than 10 MW of Capacity."

purchase “green power” elsewhere. Otherwise a renewable DG facility should be paid the utility’s regular avoided costs.”

In other words, if a utility has an obligation to acquire renewable electricity (e.g., through Minnesota’s Renewable Energy Objective or RPS), it should pay the interconnecting renewable DG facility the avoided cost of the RECs in addition to the avoided cost of the energy and capacity.

Furthermore, if a low-emitting (renewable) DG facility makes it possible for the interconnecting utility to capture the value of an emissions allowance (where, for example, the renewable facility has the effect of enabling the utility to reduce the operation of a polluting facility), then the utility is to pay the DG facility owner the value of the allowance revenues. However, a DG customer may receive payment for the renewable attributes or for the emissions allowances, but not both.

#### **4.4 Michigan**

The Michigan Public Service Commission recently issued an order for net metering that removed a proposed provision relating to REC ownership, rendering the program silent on the issue. The case, however, is interesting because of what was proposed and the rationale for the PSC’s action.

In 2004, a collaborative composed of utilities and Commission staff proposed a consensus agreement for the adoption of net metering and distributed generation tariffs by Michigan utilities. Under the proposed rule, each utility would have been granted ownership of all RECs associated with its customers’ net-metered generation capacity. The value realized by the sale of these RECs would be used to cover the utility’s costs of operating a net metering program, which the collaborative argued would benefit program participants, and if any revenue remained it would have been split 50-50 with the small generators. The collaborative also proposed to issue two RECs for every kWh generated, which they argued would double the value that would otherwise be available to the project.

With the exception of the Michigan Electric and Gas Association (representing the utilities), all comments on the proposed rule, insofar as they addressed the question of REC ownership, suggested that the RECs should belong to the customer and not the utility. The argument most frequently stated was that customers have borne the costs of the net-metered systems and should therefore receive the benefits to help compensate for their investment. Other arguments included the following:

- The public purpose of net metering—presumably to encourage distributed generation, encourage resource diversity, or encourage cleaner sources of electricity supply—are undermined by removing the incentive of REC ownership and sales.
- The focus on covering all utility costs from REC sales ignores the tangible benefits to the utilities from distributed generation and emissions reductions resulting from net metering.

- Making the transfer of RECs a condition of net metering and interconnection gives the utilities extreme market power because customers have no alternative to interconnecting to their distribution utility. This gives the utility the ability to veto the interconnection on business grounds rather than technical or safety grounds.
- Granting the RECs to distribution utilities would foreclose small business opportunities for aggregating RECs from net-metered facilities.
- If the concept of RECs is that they are a separate commodity from the electricity, and can be traded separately, they should be paid for separately.
- Utilities, like any other party, should pay fair and just compensation for the RECs, separate from and in addition to a net metering or distributed generation tariff.
- The proposal to issue two RECs for each kWh generated would devalue the currency by half, if such RECs could find buyers in the marketplace. REC tracking systems would not accept such a REC.

The PSC, in approving the overall voluntary net metering program, deleted the provisions relating to RECs because it was troubled with “mandatory transfer of ownership of the RECs to the utilities, the double-counting of the RECs held by utilities, and the failure to allow small owners to aggregate RECs.”<sup>71</sup>

#### **4.5 California**

In California the issue has arisen in the context of the eligibility of customer-sited distributed generation (DG) to participate in the California RPS, and is not specific to net-metering. We include it here because distributed generation includes net-metered facilities and because it does not fit in the discussion of QF facilities. A further discussion of REC ownership for distributed generation in California is included in Section 5, because the issue of state and utility subsidies for renewable DG has also been a factor in the debate.

The California Public Utilities Commission (CPUC) has stated that distributed generation on the customer side of the meter, if installed after October 24, 2002, is included in its definition of eligible resources for compliance with the RPS.<sup>72,73</sup> More recently, however, it has ruled that the owners of the renewable DG facilities own the RECs associated with the generation of electricity

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<sup>71</sup> Michigan Public Service Commission, Case No. U-14346, Order Approving Consensus Agreement, March 29, 2005.

<sup>72</sup> CPUC Rulemaking 01-10-024, Order Instituting Rulemaking to Establish Policies and Cost Recovery Mechanisms for Generation Procurement and Renewable Resource Development, Decision 02-10-062, Interim Opinion, October 24, 2002.

<sup>73</sup> To the extent that RECs from renewable DG facilities are counted towards the RPS, the associated electrical generation consumed on the customer side of the meter must also be added to the applicable utility’s total retail sales for calculating RPS compliance. CPUC Rulemaking 04-04-024, Order Instituting Rulemaking to Implement the California Renewables Portfolio Standard Program. Decision 05-05-011, Opinion Clarifying Participation of Renewable Distributed Generation in the Renewable Portfolio Standards Program, May 5, 2005.



from those facilities.<sup>74</sup> As discussed earlier relating to QF contracts, however, tradable RECs are not currently allowed under the California RPS, so RECs from distributed generation on the customer side of the meter cannot be sold and counted towards the RPS at this time. Counting RECs from distributed generation facilities is further complicated by issues relating to subsidies and measurement (as discussed in Section 5), and the CPUC plans to address this issue in a separate rulemaking.<sup>75</sup>

#### **4.6 North Dakota**

The Otter Tail Power tariff for QFs with 100 kW or less of generating capacity includes a net billing schedule. Under that tariff schedule, any energy in excess of usage that is delivered to the utility will be paid avoided energy costs plus 0.2 cents/kWh for the RECs.<sup>76</sup> The Public Service Commission approved the tariff in October 2005. By extension, for any generation used on-site, the customer will retain REC ownership.

#### **4.7 Oregon**

As mentioned earlier, staff of the Oregon Public Utility Commission proposed that, unless otherwise agreed to by separate contract, the owner of the renewable energy facility should retain ownership of the RECs associated with electricity the facility generates and sells to an electric company pursuant to a net metering tariff (presumably, the customer would also receive RECs for electricity generated for its own use).<sup>77</sup> The comments in this docket were all about retention or conveyance of the RECs from QF contracts under PURPA, and there were no comments about the net metering provision. The OPUC consequently ordered that the net metered facility owner retains the RECs.<sup>78</sup>

#### **4.8 Pennsylvania**

As part of the implementation of Pennsylvania's Alternative Energy Portfolio Standard, the Pennsylvania Public Utility Commission established a net metering working group to review current net metering rules and their effect on distributed generation. PUC staff developed a proposal for statewide net metering regulations that recommends that the customer-owner of the distributed generation own the RECs from the net-metered system. Some utilities, on the other hand, believe that they should own any RECs from such systems. In November 2005, the PUC issued a proposed order relating specifically to net metering, and including the following paragraph:

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<sup>74</sup> *Ibid.*

<sup>75</sup> CPUC DG Rulemaking (R.) 04-03-017.

<sup>76</sup> North Dakota Public Service Commission Case No. PU-05-193, "In the Matter of Otter Tail Power Company's Rates for Small Power Production and Cogeneration," filed March 31, 2005.

<sup>77</sup> Oregon Public Utility Commission, Docket No: AR 495, "In the Matter of a Proposed Rulemaking to Adopt and Amend Rules Related to Ownership of the Non-energy Attributes of Renewable Energy (Green Tags), Energy Service Supplier Certification Requirements, and Use of the Terms 'Electric Utility' and 'Electric Company.'" Staff report for August 2, 2005 Public Meeting, issued July 28, 2005.

<sup>78</sup> Oregon Public Utility Commission, Docket No. 495, Order No. 05-1229, November 28, 2005.

“A customer-generator that is eligible for net metering owns the alternative energy credits of the electricity it generates, unless there is a contract with an express provision that assigns ownership of the alternative energy credits to another entity or the customer-generator expressly rejects any ownership interest in alternative energy credits under Section 75.14(d) of this subchapter.”<sup>79</sup>

Comments and a final decision are expected in 2006.

#### **4.9 New Mexico**

The New Mexico Public Regulation Commission recently approved Public Service Company of New Mexico's (PNM) Solar Energy Program that offers customers a long-term fixed payment for small, grid-connected photovoltaic systems.<sup>80</sup> According to the utility website, existing as well as new net-metered facilities are eligible for the payment, which will be made for the entire output of the PV generator. Hence net metering is not conditioned on the transfer of RECs to the utility, and customers will retain the RECs from their DG facilities if they choose not to participate in PNM's REC purchase program.

#### **4.10 Colorado**

Amendment 37, passed by Colorado voters in November 2004, does not mention net metering by name but does require that certain utilities provide, for solar on-site installations up to a maximum of 100 kW in capacity, an option that such customers' retail electricity consumption be offset by the solar electricity generated, and that any monthly excess generation be carried forward in the form of a credit. In the course of rulemaking proceedings, a diverse group of stakeholders forged a consensus agreement that increased the maximum capacity to 2 MW for all renewable resources eligible for the Colorado RPS.<sup>81</sup>

The Order and final rules adopted by the Colorado PUC imply that customers own the RECs if they avail themselves only of the net metering option without further financial incentives or payment for RECs.<sup>82</sup> In most cases, however, net-metered customers are expected to enter into an agreement to transfer the RECs to the utility for compensation. This incentive program is described in more depth in Section 5.

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<sup>79</sup> Pennsylvania Public Utility Commission Docket No. M-00051865 and L-00050174, Proposed Rulemaking Order (Net Metering), November 10, 2005.

<sup>80</sup> New Mexico Public Regulation Commission, “NM PRC Approves Rate Certainty for Participants in PNM Solar Energy Program,” press release December 28, 2005.

<sup>81</sup> Colorado Public Utilities Commission Docket No. 05R-112E, In the Matter of Proposed Rules Implementing Renewable Energy Standards 4 CCR 723-3. Consensus Rule Sections Filed by Public Service Company of Colorado et al., filed August 15, 2005. The consensus rules were proposed by Public Service Company of Colorado, Aquila, Inc., the Colorado Office of Consumer Counsel, the City of Boulder, Western Resource Advocates, the Colorado Renewable Energy Society, the Colorado Solar Energy Industries Association, the American Wind Energy Association, Climax Molybdenum Corporation, CF&I Steel, L.P., Tri-State Generation and Transmission Association, Inc., Colorado Rural Electric Association, Colorado Association of Municipal Utilities, and the Colorado Independent Energy Association.

<sup>82</sup> Colorado Public Utilities Commission, Docket No. 05R-112E, In the Matter of the Proposed Rules Implementing Renewable Energy Standards 4 CCR 723-3, Decision No. C06-0091, Order Granting, in Part, and Denying, in Part, Rehearing, Reargument and Reconsideration, January 27, 2006.

#### 4.11 Maryland

Although not specific to REC ownership under net metering or QF contracts, Maryland's RPS legislation includes direction relating to on-site generation, and is therefore addressed here. Senate Bill 869 states that on-site generation is eligible to receive RECs, including credit for electricity self-generated and consumed on-site.

Although the RPS applies to retail electricity sales in the state by electricity suppliers, the law implies that certain industrial customers and renewable on-site generators may have some responsibility for helping to meet the standard. "The customer [read renewable on-site generator] shall surrender the credits necessary to meet the standard to its electricity supplier for inclusion in the electricity supplier's compliance report..." But "The customer may retain or transfer any credits in excess of the amount needed to satisfy the standard for the customer's load."<sup>83</sup> Although the legislation is not entirely clear, perhaps its intent is to make the customer responsible for any RECs needed to meet the RPS percentage as applied to the customer's net load (which is served by a retail electricity supplier), while the customer would be able to retain any RECs that are left over. The rules adopted by the Public Service Commission on October 26, 2005, do not, however, discuss this issue, nor was it a subject of comment by the parties participating in the docket.<sup>84</sup> Nevertheless, the PSC will continue to work on additional issues relating to RPS implementation, so this may yet be clarified.

#### 4.12 District of Columbia

The District of Columbia's RPS legislation is unclear with respect to REC ownership under net metering. Like the Maryland RPS legislation on which the DC Act is modeled, there is no direct mention of net metering, but the language does refer to on-site generation eligibility to satisfy the RPS. The DC Act makes several statements about RECs from on-site generation without providing sufficient explanatory context necessary for unambiguous understanding. Section 5(h) of the Act states:

- "(2) Credits that a renewable on-site generator surrenders to its electricity supplier to meet the standard and that the electricity supplier relies on in submitting its compliance report shall not be resold or retransferred by the renewable on-site generator.
- (3) The renewable on-site generator may retain or transfer any credits in excess of the amount needed to satisfy the standard for the renewable on-site generator's load.
- (4) A renewable on-site generator that satisfies the standard applicable to the renewable on-site generator's load under this subsection shall not be required to contribute to a compliance fee recovered under section 7."<sup>85</sup>

As of this writing, ownership of RECs from customer-sited generators has not been addressed by an RPS implementation working group.<sup>86</sup>

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<sup>83</sup> Maryland SB 869, Section 7-704(F).

<sup>84</sup> Maryland Public Service Commission Docket No. RM12. The rules are published as Annotated Code of Maryland (COMAR) 20.61.

<sup>85</sup> District of Columbia Code Division V, Title 34 Public Utilities, Subtitle III. Electricity, Chapter 14A – Renewable Energy Portfolio Standards.

#### 4.13 Arizona

The Arizona Corporation Commission recently initiated a Notice of Proposed Rulemaking in which a new renewable energy standard is under consideration. As described in Section 3.16 above, the proposed rules state that RECs may be created based on the output of eligible facilities, including customer-sited facilities, and that the RECs are owned by the owner of the facility from which the RECs are derived unless specifically transferred.<sup>87</sup>

#### 4.14 Individual Utilities

NorthWestern Energy, a Montana-based investor-owned utility, claims the RECs as part of its interconnection and net-metering agreement with customers.

“Renewable Energy Certificates (RECs) or Green Tag Credits (GTCs) are marketable environmental attributes of electric energy generated using renewable fuel sources. NWE is solely responsible to apply and qualify for, and shall have the right to receive, the benefits of any and all RECs or GTCs created or granted as a result of the net metering arrangement with Customer.”<sup>88</sup>

#### 4.15 Model Rules

The Interstate Renewable Energy Council (IREC) developed model rules for net metering and interconnection that address REC ownership. In IREC’s view, “A customer-generator owns any renewable attributes of the electricity it generates, and may sell any Renewable Energy Certificates created as a result of that generation, individually or through an aggregator, or through a certificate trading program authorized by the PUC.”<sup>89</sup>

#### 4.16 Net Metering State Summary

Relatively few states have addressed the ownership of RECs from net-metered and distributed generation facilities. This may be because many states adopted net metering rules prior to the advent of RECs, or because the quantity of RECs from net-metered facilities is small relative to other generation sources. Of those states that have addressed net-metered RECs, most have done so in the context of state renewable energy standards where customer-owned facilities are eligible to satisfy an RPS. Only two states, Michigan and Oregon, have dealt with the ownership issue in the absence of a state RPS or similar goal.

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<sup>86</sup> District of Columbia Public Service Commission Formal Case No. 945, In the Matter of the Investigation into Electric Service Market Competition and Regulatory Practices, Item 1420, Fourth Report of the Working Group on the Renewable Energy Portfolio Standard Act of 2004, March 24, 2006.

<sup>87</sup> Arizona Corporation Commission Docket No. RE-00000C-05-0030, In the Matter of the Proposed Rulemaking for the Renewable Energy Standard and Tariff Rules, Decision No. 68566 issued March 14, 2006, Attachment A at Section R14-2-1803. <http://www.cc.state.az.us/utility/electric/RES-03-14-06.pdf>

<sup>88</sup> NorthWestern Energy, Interconnection Agreement for Customer-Owned, Grid-Connected Electric Generating Facilities of 50 Kilowatts or Less Peak Generating Capacity. Rev. March, 2003.

<sup>89</sup> Interstate Renewable Energy Council, “Model Distributed Generation Interconnection Procedures and Net Metering Provisions,” July 2004. Chapter 1-1.3 Net Metering General Provisions, paragraph (f).

Nevada and Maryland, as well as the District of Columbia, have addressed REC ownership from customer-owned facilities in statute, in the context of RPS legislation. In the case of Maryland and the District of Columbia, however, the law is somewhat unclear. In most other cases, REC ownership has been addressed through regulatory proceedings.

Table 2 summarizes state determinations so far on ownership of RECs in net metering and distributed generation agreements. All states that have addressed this issue so far allow customers to retain ownership for all or a majority of the RECs for the generation used on site,<sup>90</sup> though two states require some sharing of these RECs and there are at least three cases where RECs from net excess generation are conveyed to the utility. In the many cases where states have remained silent on this issue, most stakeholders likely also assume that RECs remain with the customer-owners of the projects, unless explicitly transferred.

**Table 2. State Positions on REC Ownership under Net Metering & Distributed Generation**

<b>RECs Associated with Customer Load Conveyed to Utility</b>	<b>RECs Associated with Net Excess Generation Conveyed to Utility</b>	<b>Proceeding in Process (←leaning→)</b>	<b>RECs Retained by Customer-Generator</b>	<b>RECs Shared between Utility and Customer</b>
NorthWestern Energy	MN (with compensation) ND (with compensation) NV	AZ→ PA→	CA* CO MI** MN*** ND*** NJ NM NV*** OR	MD**** DC****

\* California may reconsider.

\*\* Although Michigan rejected a proposal for utility ownership, it did not affirmatively award RECs to the customer-generator. At least one utility disputes this interpretation that RECs are retained by the customer-generator, and may be claiming them for environmental disclosure purposes.

\*\*\* Customer retains only those RECs associated with customer load.

\*\*\*\* Implementation details not yet available.

<sup>90</sup> Though not a state, NorthWestern Energy, a Montana utility, appears to be the only exception.

## 5. State Incentives

A number of states and utilities provide financial incentives to renewable energy projects. A few states, such as Washington, are explicit that the RECs from projects receiving financial incentives or subsidies belong to the project owner. By their silence on the issue, most other state renewable energy programs that offer financial incentives also make no demands for the RECs from renewable energy projects that they support financially. Still other state and utility programs, however, do require that RECs be transferred from the owner of the facility to the entity offering funding. These include programs in Oregon and Nevada, as well as incentives offered by a few individual utilities. These and other state and utility programs are described below. As in the previous sections, states are presented in rough chronological order of when they addressed the issue of REC ownership.

It deserves note that the renewable energy funds in Massachusetts, New Jersey, and Illinois have purchased RECs, purchased options to buy RECs, guaranteed the purchase of RECs, or claimed RECs from projects supported by state funds if the developer defaults on its financing commitment. Some electric utilities (e.g., TVA, PNM, We Energies) have similarly entered into long-term purchase contracts for RECs from small, customer-sited generation, while many others have entered into such arrangements from utility-scale projects. These contracts and arrangements are not the same as claiming REC ownership as a routine matter from funded renewable energy projects, however, and are not covered below (see Fitzgerald et al. 2003 for more information on these efforts, at least from state renewable energy funds).

### 5.1 Nevada

The Solar Energy Systems Demonstration Program was established by Assembly Bill 431 in 2003. Nevada Power and Sierra Pacific Power administer the program under the title SolarGenerations. This program offers rebates to customers that install qualifying grid-connected photovoltaic systems. The utilities own the RECs from the electricity produced by solar systems receiving the rebates because by law the renewable electricity from the systems counts towards the utilities' solar goals under Nevada's Renewable Portfolio Standards. The law states:

“If, for the benefit of one or more of its retail customers in this State, the provider has subsidized, in whole or in part, the acquisition or installation of a solar energy system which qualifies as a renewable energy system and which reduces the consumption of electricity, the total reduction in the consumption of electricity during each calendar year that results from the solar energy system shall be deemed to be electricity that the provider generated or acquired from a renewable energy system for the purposes of complying with its portfolio standard.”<sup>91</sup>

### 5.2 Oregon

The Energy Trust of Oregon, a non-profit administrator of the revenues created by a system benefits charge, funds renewable energy projects through a variety of programs. In general, the Trust aims to subsidize a portion of the above-market costs of renewable energy systems, and in

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<sup>91</sup> Nevada Revised Statutes Title 58 Chapter 704.7821(3).

exchange will own that same proportion of the RECs that the systems produce, either over the life of the system or for a specified number of years. For example, the Trust gives the owners of residential PV systems an incentive of up to \$2.25 per Watt and the rights to sell the RECs for up to three years, after which they revert to the Energy Trust for the remaining life of the system.<sup>92</sup>

### 5.3 Washington

In April 2005, the Washington State Legislature enacted, and the Governor signed, SB 5101, which provides a renewable energy production incentive to customers that install solar photovoltaics, wind or anaerobic digesters, up to a maximum of \$2,000 per year. The incentives remain in effect through June 30, 2014. The law states, “The environmental attributes of the renewable energy system belong to the applicant, and do not transfer to the state or the light and power business upon receipt of the investment cost recovery incentive.”<sup>93</sup>

### 5.4 Connecticut

The Connecticut Clean Energy Fund (CCEF) offers rebates for photovoltaic systems through periodic solicitations. In its first round of solicitations, CCEF required the transfer to CCEF of all RECs generated by customer-owned systems receiving a rebate, because CCEF felt that small system owners would not be interested in the RECs. After the first round, CCEF recognized that interest in solar RECs had increased and reversed its position, leaving the RECs with the project owners. In a solicitation dated September 15, 2004, for example, CCEF stated, “The system owner shall be entitled to all RECs and/or market premiums arising out of the installed system.”

### 5.5 California

In California the issue of ownership of RECs from facilities receiving financial incentives has been argued in the context of a distributed generation rulemaking and the state’s RPS. In comments to the CPUC, several parties argued that the receipt of public subsidies should be considered in determining ownership of RECs from distributed generation (DG).<sup>94</sup> In general, the utilities asserted that if a DG facility receives a ratepayer subsidy, the utility should be able to use all of the RECs associated with the energy generated by the facility towards its RPS compliance. One utility specifically argued that the economic value of the RECs should be used for the economic benefit of the utility ratepayers who subsidized the facilities; ratepayers should not have to pay twice for the benefits of distributed generation (once for the subsidy to the facility and again for the cost of RPS compliance).

In contrast, many other parties asserted that RECs should be the property of the owner of the DG facility, much like central station renewable facilities are presumed to own their RECs, unless specifically transferred by contract. Some pointed out that subsidies do not fund the entirety of a DG facility. Others acknowledged that while the subsidies paid for DG installation do overlap with the goals of (and subsidies paid for) the RPS program, there is not a precise match. Another testified that DG already provides ratepayers with many other benefits, including avoided

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<sup>92</sup> See <http://www.energytrust.org>.

<sup>93</sup> Revised Code of Washington Chapter 82.16.120 (9).

<sup>94</sup> California Public Utilities Commission, Rulemaking 04-04-024, Order Instituting Rulemaking to Implement the California Renewables Portfolio Standard Program. Decision 05-05-011 May 5, 2005.

capacity capital costs, avoided transmission and distribution costs, avoided transmission and distribution line losses, avoided fuel costs, health benefits from cleaner air, and a price hedge against rising and volatile fossil fuel prices.

To allocate RECs based on subsidies received, one would have to quantify the benefits from each program separately, and this could vary from one installation to another. According to the CPUC, “The problem is exacerbated by the fact that the DG subsidies tend to pay for the equipment and capital costs of a renewable DG system, while the RPS program pays for generation. Trying to make comparisons is difficult when one program is basically buying capacity, while the other is buying energy.”<sup>95</sup>

For now, the CPUC has ruled that the owners of the renewable DG facilities own the RECs associated with the generation of electricity from those facilities, but the CPUC has also clearly stated that it will continue to consider the question of subsidies in a subsequent proceeding.<sup>96</sup>

## 5.6 Colorado

Colorado’s Amendment 37, passed by voters in November 2004, adopted a Renewable Energy Standard, or RPS, and directs certain utilities to make a Standard Rebate Offer of \$2 per Watt for on-site solar systems, which qualify to satisfy the solar portion of the state’s RPS. The law itself does not speak to the question of REC ownership, but the question was discussed in Colorado PUC proceedings. A diverse group of interested parties filed a consensus proposal on some of the topics being discussed, including the Standard Rebate Offer.<sup>97</sup>

The RPS rules adopted by the PUC include a rule for the Standard Rebate Offer that is substantially the same as that recommended by the consensus group.<sup>98</sup> In general, the Standard Rebate Offer is available to on-site solar systems with a capacity of 0.5 kW to 100 kW that are installed after December 1, 2004. In order to receive the Standard Rebate Offer buy-down payment, the customer must enter into an agreement with the utility, with a minimum term of 20 years, that transfers the solar RECs generated by the on-site solar system during the term of the agreement from the customer to the utility. However, the utility must also make an additional payment to the owner of the system to compensate for the RECs. For systems larger than 10 kW up to 100 kW, the REC payments must be based on metered output, but for smaller utilities may make a one-time payment based on estimated output. REC payment levels will be established by periodic competitive bidding for RECs from larger systems.

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<sup>95</sup> *Ibid.*

<sup>96</sup> *Ibid.*

<sup>97</sup> Colorado Public Utilities Commission Docket No. 05R-112E, In the Matter of Proposed Rules Implementing Renewable Energy Standards 4 CCR 723-3. Consensus Rule Sections Filed by Public Service Company of Colorado et al., filed August 15, 2005. The consensus rules were proposed by Public Service Company of Colorado, Aquila, Inc., the Colorado Office of Consumer Counsel, the City of Boulder, Western Resource Advocates, the Colorado Renewable Energy Society, the Colorado Solar Energy Industries Association, the American Wind Energy Association, Climax Molybdenum Corporation, CF&I Steel, L.P., Tri-State Generation and Transmission Association, Inc., Colorado Rural Electric Association, Colorado Association of Municipal Utilities, and the Colorado Independent Energy Association.

<sup>98</sup> Colorado Public Utilities Commission, Docket No. 05R-112E, In the Matter of the Proposed Rules Implementing Renewable Energy Standards 4 CCR 723-3, Decision No. C06-0091, Order Granting, In Part, And Denying, In Part, Rehearing, Reargument And Reconsideration, January 27, 2006.



## 5.7 Arizona

Arizona's proposed Renewable Energy Standard includes a "Customer Self-Directed Renewable Energy Option." Under this proposal, customers may apply to their utility for funding—up to one-half of the cost—to install distributed renewable energy resources. If the customer pursues funding under this option, the customer will be required to transfer the RECs to the utility, which must use them to comply with the RPS.<sup>99</sup> A customer may choose to forgo utility payments, in which case the customer may keep the RECs. This proposal, as part of the entire Renewable Energy Standard, will soon be open for comment.

## 5.8 Individual Utilities

Utility incentives to customer-owned renewable generation may be considered of two types. In one category are payments made for energy bundled with RECs or for RECs alone based on output. Examples of these are the Tennessee Valley Authority's Generation Partners program,<sup>100</sup> Public Service Company of New Mexico's Solar PV Program,<sup>101</sup> and We Energies' Energy for Tomorrow Power Partner program (solar buy-back rate).<sup>102</sup> These are straightforward transactions easily understood by customers, and we do not describe them further here.

A second category of utility incentives includes buy-downs or rebates related to capacity, or grants or loans related to system cost, where the relationship between the incentive and the generation of RECs is not as obvious. This is where the ownership of RECs may be ambiguous.

We did not review every utility financial incentive program to determine how each treats REC ownership. Most of the state and utility solar buy-down programs that have been reviewed, however, do not claim the RECs created by customer-owned generation (Chen et al. 2005). There are, however, a few that do claim the RECs for the utility and are not encompassed by state regulation reviewed above.

### *Austin Energy*

Austin Energy's Solar Rebate Program offers a rebate to customers who install a grid-connected photovoltaic system, based on the capacity of the system. Customers who receive the solar rebates, however, must transfer to Austin Energy all RECs and other environmental attributes from power generated by the PV systems.<sup>103</sup>

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<sup>99</sup> Arizona Corporation Commission Docket No. RE-00000C-05-0030, In the Matter of the Proposed Rulemaking for the Renewable Energy Standard and Tariff Rules, Decision No. 68566 issued March 14, 2006, Attachment A at Section R14-2-1809. <http://www.cc.state.az.us/utility/electric/RES-03-14-06.pdf>

<sup>100</sup> See <http://www.tva.gov/greenpowerswitch/partners/index.htm>

<sup>101</sup> See <http://www.pnm.com/customers/pv/home.htm>

<sup>102</sup> See [http://www.we-energies.com/business\\_new/altenergy/custgen.htm](http://www.we-energies.com/business_new/altenergy/custgen.htm)

<sup>103</sup> See Austin Energy, Solar Rebate Program, "Renewable Energy Credit Assignment Agreement," April 2004.

### *NorthWestern Energy*

NorthWestern Energy, which administers Universal System Benefits Charge (USBC) monies it collects in Montana, claims the right to all RECs from systems that it supports financially, regardless of what portion of the project it funds.

“Renewable Energy Certificates (RECs) or Green Tag Credits (GTCs) are marketable environmental attributes of electric energy generated using renewable fuel sources. NWE is solely responsible to apply and qualify for, and shall have the right to receive, the benefits of any and all RECs or GTCs created or granted as a result of USBC funding customer-owned renewable energy generation.”<sup>104</sup>

### *Arizona Public Service*

To help meet its Arizona Environmental Portfolio Standard (EPS) obligation, Arizona Public Service (APS) offers a program called the EPS Credit Purchase Program to encourage customers to install solar systems on their homes or businesses. APS offers such customers a one-time payment of \$4/Watt for systems that meets its eligibility requirements, in exchange for the transfer of the RECs from the system “for so long as the law requires that APS comply with the EPS program or APS is able to derive some regulatory, green house gas or emission reduction credits or other environmental benefit from the existence of this Agreement with Customer, whichever is longer.”<sup>105</sup>

### *Salt River Project*

Salt River Project’s (SRP) EarthWise Solar Energy Program provides rebates to residential customers installing solar photovoltaic systems of 3 kW or less. Customers installing an eligible system must sign an agreement that states that SRP is the owner of all environmental attributes associated with the generating facility. Specifically, the agreement states:

“Sale of Environmental Attributes. In exchange for the EarthWise Solar Energy Payment SRP has reserved for and will pay to Owner after interconnection, Owner hereby sells, transfers and delivers to SRP all Environmental Attributes and Environmental Attribute Reporting Rights, as such terms are defined below, associated with the generation of energy by the Generating Facility during the operating life of the Generating Facility. This provision shall survive the termination of this Agreement and any subsequent sale(s) of the Generating Facility. "Environmental Attributes" shall mean any and all fuel, emissions, air quality, or other environmental characteristics, including green energy tags, renewable energy credits, or certificates attributable to the metered output generated by the Generating Facility during the operating life of the Generating Facility and in which Owner has property rights or will have property rights upon such attributes coming into existence. "Environmental Attributes

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<sup>104</sup> NorthWestern Energy, *Bright Ideas in Renewable Energy: A Guide to Funding Your Renewable Energy Project*, at [http://www.northwesternenergy.com/documents/bright\\_ideas\\_in\\_renewable\\_energy.pdf?M=2&I=348](http://www.northwesternenergy.com/documents/bright_ideas_in_renewable_energy.pdf?M=2&I=348).

<sup>105</sup> EPS Credit Purchase Agreement, Revision 7, April 12, 2005, at <http://www.aps.com/images/PDF/EPSCreditLessThan5kWPurchaseAgree.pdf>

Reporting Rights" shall mean all rights to report ownership of the Environmental Attributes to any person or entity under Section 1605(b) of the Energy Policy Act of 1992, any successor or replacement statutes, or otherwise.”<sup>106</sup>

### *Tucson Electric Power*

Like Arizona Public Service, Tucson Electric is obligated to satisfy the Environmental Portfolio Standard with specific requirements for solar energy. The utility offers several options for customers who want to invest in solar power, all involving installation of a solar photovoltaic system on the customer’s premises. The incentives vary depending on the option chosen but all result in a buy-down rebate of dollars per Watt. The rebate requires conveyance of any RECs to the utility. The customer agreement states:

“As a further condition to Customer’s participation in the SunShare Program, Customer hereby assigns to Company all of its rights to all electrical output of the Customer System and all associated environmental credits specifically including those created under the Arizona Corporation Commission Environmental Portfolio Standard Program (the “EPS”), which may result from the installation and use of the Customer System.”<sup>107</sup>

## **5.9 Financial Incentives State Summary**

In the vast majority of cases, states have not conditioned the receipt of state incentives on the transfer of RECs to the incentive program administrator. This is because most states are aiming to support renewable energy financially, but also want those subsidized generators to maximize other revenue sources so that state subsidies can be reduced over time.

Where REC transfer to the funding entity does occur, it is often based on the existence of an RPS (especially if it includes a solar set-aside like Nevada, New Mexico and Colorado). In these instances, requiring REC transfer as a condition of funding or subsidy is viewed as a way of helping the state or utilities meet their RPS obligations.

Two of the states cited, Washington and Nevada, addressed the disposition of RECs in statute, although these two states came down on different sides of the issue, perhaps because of the presence of an RPS in one state (Nevada) but not the other (Washington). Two states, Colorado and California, have addressed the issue in regulatory proceedings. Both of these states has an RPS, which tends to demand greater regulatory clarity. Two states, Connecticut and Oregon, have acted through programmatic decisions by non-regulatory entities.

Table 3 summarizes state and utility determinations on ownership of RECs where financial incentives have been received by the generator.

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<sup>106</sup> Salt River Project, Solar Energy Program Residential Distribution Interconnection Agreement, no date, <http://www.srpnet.com/environment/earthwise/pdfx/Residential%20ICA%200905.pdf>

<sup>107</sup> Tucson Electric Power Company, GreenWatts™ SunShare Hardware Buydown Agreement, Revision 4, ACC approved 1/30/01, revised & ACC approved 8/3/04. <http://greenwatts.com/Docs/HardwareBuydownAgreement.pdf>

**Table 3. State Positions on REC Ownership with Financial Incentives**

<b>RECs Conveyed to Funding Entity</b>	<b>Proceeding in Process (←leaning→)</b>	<b>RECs Shared between Funder and Generator</b>	<b>RECs Explicitly Retained by Generator</b>
CO* NV* Several individual utility programs	←AZ*	OR	CA* (may reconsider) CT* WA Most others

\* RPS present in state.

## 6. Conclusions

This report has provided information on three instances in which uncertainty over REC ownership has arisen: (1) QFs that sell their generation under PURPA contracts; (2) customer-owned generation that benefits from state net metering rules; and (3) generation facilities that receive financial incentives from state or utility funds.

In the case of QFs, REC ownership uncertainty led to a petition to FERC to issue a declaratory judgment on the question. FERC ruled that it is up to the states to decide on REC ownership, but that avoided cost payments mandated by PURPA pay only for energy and capacity and do not convey the renewable attributes, absent explicit contractual language to the contrary. Far from resolving the issue, these seemingly contradictory statements by FERC have instead led to further disputes over REC ownership. The focus of this debate has shifted to the states, with the contenders on both sides of the issue often citing the FERC Order to bolster their cases.

Most states that have addressed this issue so far have concluded that for existing QF contracts, the RECs will be conveyed to the utility purchaser. In most cases, this decision appears to have been motivated by the presence of state RPS requirements, which provide tangible economic value to RECs. Though the facts vary in each state, state policymakers have tended to conclude that conveying RECs to the utility power purchaser will keep RPS compliance costs down. Some of these rulings have been appealed in state and federal courts, however, further prolonging clear resolution. In general, regulatory uncertainty and the potential for legal appeals could be reduced if state legislatures, rather than regulatory bodies, were to answer the question of REC ownership.

The existence of state RPS policies also appears to be a driver in clarifying REC ownership in net metering agreements. All states that have addressed this issue so far allow customers to retain ownership for all or a majority of the RECs for generation used on site, though two states require some sharing of these RECs and there are at least three cases where RECs from net excess generation are conveyed to the utility. In general, issues of REC ownership under net metering arrangements have not been as strongly disputed as have QF RECs, in part because the economic scale of the issue is of lesser importance than for QFs (except, arguably, where solar or distributed generation set-asides are included in RPS policies).

Even fewer states have explicitly addressed the question of REC ownership when financial incentives are granted by a utility or a renewable energy fund to a renewable energy project, but where states have not been explicit, RECs will generally be retained by the project owner. Some states may allow generators to retain RECs so that public incentives can be reduced over time. Where RECs are required to be transferred to the incentive provider, it has often been done within the context of incentives targeting systems whose RECs are needed for the purpose of RPS compliance.

On a longer-term basis, issues of REC ownership may diminish. New agreements—whether QF contracts, net metering arrangements, or incentive agreements—are more likely than older contracts to clearly specify REC disposition. The number of QF contracts is also likely to

diminish with the passage of the Energy Policy Act of 2005, resulting in less tension and conflict. In the meantime, some degree of confusion and uncertainty will remain. Absent further clarification from FERC on the issue of QF REC ownership, states may wish to clarify REC ownership through state legislation. Though regulatory action has been the more common approach to determining REC ownership so far, those decisions have sometimes been appealed to the courts. State legislative action may reduce such appeals.<sup>108</sup>

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<sup>108</sup> Alternatively, because issues of REC ownership have tended to follow the passage of state RPS requirements, states may wish to consider focusing RPS obligations on the addition of *new* renewable energy development (rather than also supporting existing renewable generation). Such an approach would make the disposition of RECs from existing contracts somewhat less important.

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